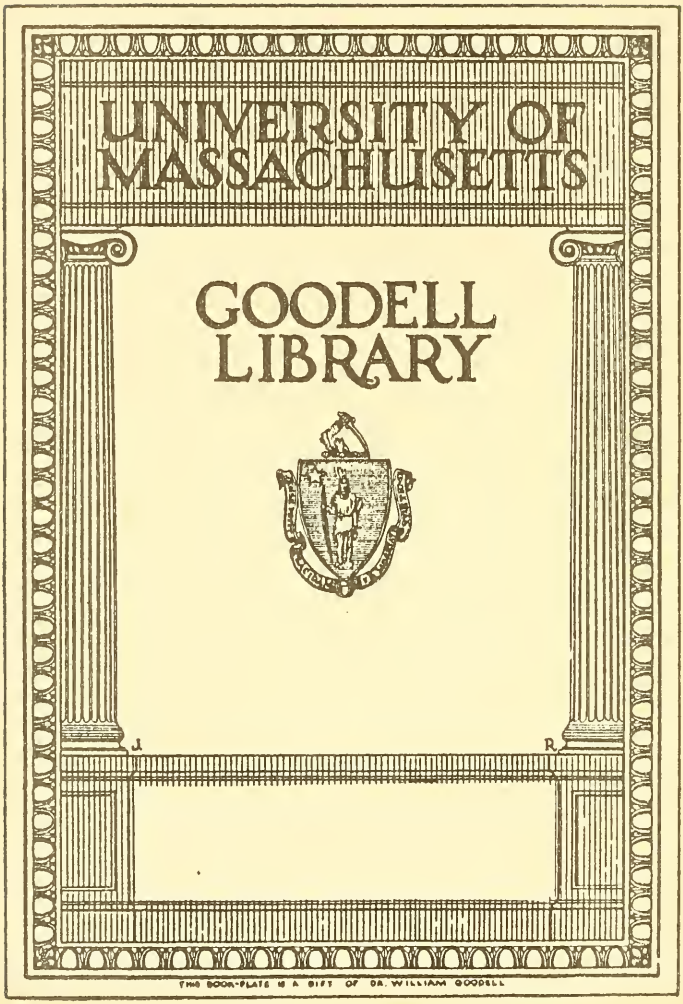
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SEVENTIETH ANNUAL REPORT

OF THE

BOARD OF EDUCATION:

TOGETHER WITH THE

SEVENTIETH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD,

1905-1906.

JANUARY, 1907.

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STATE BOARD OF EDUCATION.

1907.

EX OFFICIIS.

His Excellency CURTIS GUILD, Jr., *Governor.*

His Honor EBEN S. DRAPER, *Lieutenant-Governor.*

BY APPOINTMENT.

ELLA LYMAN CABOT,[1]	*Boston,*	May 25, 1907.
ALBERT E. WINSHIP,	*Somerville,*	May 25, 1908.
THOMAS B. FITZPATRICK,[2]	*Brookline,*	May 25, 1909.
CAROLINE HAZARD,	*Wellesley,*	May 25, 1910.
JOEL D. MILLER,	*Leominster,*	May 25, 1911.
KATE GANNETT WELLS,	*Boston,*	May 25, 1912.
CLINTON Q. RICHMOND,	*North Adams,*	May 25, 1913.
GEORGE I. ALDRICH,	*Brookline,*	May 25, 1914.

SECRETARY.

GEORGE H. MARTIN, ... *Boston.*

CLERK AND TREASURER.

C. B. TILLINGHAST, ... *Boston.*

AGENTS.

JOHN T. PRINCE, ... *West Newton.*
JAMES W. MACDONALD, ... *Stoneham.*
JULIUS E. WARREN, ... *Worcester.*
FREDERIC L. BURNHAM, ... *Cambridge.*

Agent for the Promotion of Manual Arts.

CLERICAL ASSISTANTS.

Agnes Caroline Blake, *Chief Clerk.* Esther E. Elwell.

[1] Appointed May 10, 1905, to succeed Elmer H. Capen, who died March 22, 1905.
[2] Appointed Dec. 27, 1905, to succeed George H. Conley, who died Dec. 20, 1905.

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education has the honor to submit to the Legislature its seventieth annual report.

Because the advances in education already made are themselves a significant indication for further progress, we can best mark this important date by a brief review of the work of the Board, and by calling the attention of the Legislature to the graphic and convincing report of the secretary on this subject.

The work of the Board of Education falls into two divisions: (1) the direction of the State normal schools, for whose care it is wholly responsible; and (2) the supervision of popular education throughout the State.

Growth and Development of the Normal Schools.

Before the opening of the first two normal schools in 1839 no thorough, directed training for the profession of teaching was attainable in this country. For many years later a large majority of the teachers throughout Massachusetts had no normal school training; but year by year this majority has been reduced, until in 1906 nearly 48 per cent. of all the teachers in the State have been trained in normal schools. It is of course to be remembered that a large proportion of these normal school graduates teach in the immediate vicinity of Boston, and that many counties have relatively few teachers who have received a complete training. Nevertheless, the proportion of teachers who have been through a normal school persistently though slowly increases, and it is significant of the respect given to normal school training that nearly all of the graduates obtain positions within a few months after graduation.

Another important aspect of gain in education through the work of the Board of Education is the fact of the higher standards of scholarship required for teachers. At the present time all high schools in the State must fit pupils for admission to

normal schools, and no student is admitted to a normal school without at least the equivalent of a high school education. This law ensures a higher average standard of scholarship in the normal schools than was possible before its enactment. But the normal school pupil must become not merely a scholar, but a teacher; and the Board of Education and the principals of the normal schools have provided increasingly for actual practice in teaching during the normal school term. Most of the juniors regularly observe the teaching in model and practice schools, under the guidance of a trained supervisor; and, after observing, discuss with the supervisor the points they have noticed. In addition to observation in model schools, the seniors who are taking a two years' course spend on the average about nine weeks in practice teaching. When a three years' course is taken, there is a much larger proportion of practice in teaching. In Worcester four days a week are given by second-year students to observing and teaching as apprentices in the primary and grammar grades of the Worcester public schools. On Saturdays these students return to the normal school, and review with their supervisors what they have experienced during the week. In Fitchburg the students teach about fourteen weeks in the second half of their second year, and, if they desire, may in the following year teach in the Fitchburg and Leominster schools with payment for their services. If they then take another year of study at the normal school, they are given advanced diplomas. In view of the fact that nearly all graduates of the normal schools begin at once to teach in public schools, it is essential that even at the outset of their professional life they should know by actual experience how to teach. We believe that an increase in practice teaching, when carefully supervised, is a step in the right direction; that it will save the children of Massachusetts from crude teaching, and do away with many a hard experience which would otherwise befall the young normal school graduate in her first school.

General Supervision of Popular Education.

The work of the Board of Education in respect to the encouragement and supervision of popular education cannot be sharply separated from the gains resulting from the efforts

of far-sighted teachers and thoughtful students of education throughout the State. In the main, however, the work of the Board through its agents can be classified under three heads: (1) opening of communications with all schools in the State; (2) sustaining and strengthening the present work; (3) suggesting and securing new opportunities.

First. — One of the striking gains in education since the Board of Education was established is the fulness and freedom of communication with all schools in the State. All public schools are required to furnish statistics and other data to the secretary of the Board. The agents of the Board visit schools throughout the year, and many a teacher will testify to the stimulus given to her teaching when an agent of the Board of Education sat on her left hand. The work of the agents has been differentiated to increase its efficiency; one agent has given his whole time to promote the teaching of the manual arts; the western part of the State has had the services of one agent devoted to it; and every agent has made it a part of his work to consider and to report fully each year on some chosen subjects of importance. The visits and reports of the agents of the Board of Education are made doubly effective by conferences and lectures, which serve to open a free channel of communication between the schools of even the most remote towns and the central Board. Conferences which bear directly on daily work, and which bring together in vivid, eager comparison the programmes and methods of different teachers, are one of the best means for lifting routine work onto a new plane of vision. The establishment of constant and thorough communication with all educational institutions in the State is certainly one of the greatest opportunities of the Board.

Second. — It is the purpose of the Board of Education to sustain and to strengthen all conditions that make for better education. This has been done by direct financial help in education granted by the Legislature to the towns of low valuation; by the insistence on more and more adequate school laws of attendance; and by the opening of evening schools.

The State contributes directly toward education in small towns of low valuation: (1) by the distribution of the income of the Massachusetts school fund, established in 1834 and

greatly increased since; (2) by reimbursement of high school tuition in towns that cannot maintain a high school, and by the direct gift of $500 to any town of less than 500 families which maintains a high school of its own and employs two or more teachers therein; (3) by financial aid to superintendency unions.

By these gifts the State secures a better elementary schooling for the children of small and poor towns; an opportunity for every boy and girl in the State to attend a high school without the expense of tuition; and regular and trained supervision over the schools of even the smaller villages.

In addition to its direct financial contribution to the poorer towns, the Board of Education has been enabled by the Legislature both to insist on a longer school term and to give opportunities for education to adults. The school year has been lengthened from twenty-four to thirty-two weeks, minors between the ages of fourteen and sixteen who are unable to read or write simple English sentences cannot be employed in any factory, workshop or mercantile establishment; and evening schools are since 1883 required in all towns or cities which have a population of more than 10,000.

Third. — It is the duty of the Board of Education to investigate and make known to the schools of the State every well-founded opportunity for the enrichment of the school curriculum. In the early part of the last century only orthography, reading, writing, English grammar, geography, arithmetic and good behavior were required studies. Since that time the conception of what education means has been greatly enlightened, and advances in the direction of trained use of the hands and more definite and organic relation to the live world have been especially marked. Drawing has been required in the common schools since 1870; manual training has been required since 1895 in high schools of towns or cities having a population of 20,000 or more; and in 1898 the same requirement was made for elementary schools in towns and cities of this size. Sewing, cooking, weaving, sloyd, clay modeling, iron work, carpentry and gardening have glided into the curriculum, and are influencing largely for good the lives of the students, by awakening and sustaining their inherent interests, by making them more efficient, by definitely relating school work to the larger oppor-

tunities around them. Our common school education is ceasing to be the education that would befit a scribe, a monk or a lonely student, and is becoming an education that trains for modern conditions of living.

Such, in incomplete outline, has been the work of the Board. The indications for future improvement are given both by the study of the growth of the past and by understanding the meaning of changed conditions in the present. We must secure the best teachers, and use whatever means are necessary to that end; we must make sure that the law and intention of Massachusetts for adequate schooling for her children are carried out; and we must encourage and further an education that fits for the best type of life in conditions as they exist now.

Pensions for Teachers.

The Board desires to reiterate what it said in the last report, — that, to secure the best teachers, the Legislature should enact a law enabling the people of any town or city in Massachusetts to adopt a system of pensions for teachers employed in public schools. This plea for pensions is made upon the ground that only thus can we be sure of securing and keeping the best teachers for the schools.

Any teachers who now enter the service of the public schools must do so in view of an uncertain future. The great majority of public school teachers in Massachusetts are women, whose salaries average a little more than $500 a year. Their living expenses are necessarily high, for they must have a standard of dress and of culture that would not be demanded of others who earned so meagre a salary. These women often have others to support beside themselves; and, if they are to keep in the condition of mental alertness and physical vigor that their work requires, they need recreation or travel in summer. It is impossible to lead the life that makes one year after year a responsive and efficient teacher, and at the same time save from so small a salary anything sufficient to support one during old age. And, therefore, gradually but inevitably, the most intelligent men and women will face this fact, and take up work more adequately paid than teaching; while the teaching force will be burdened by old or wornout teachers, whose resignation and

retirement into poverty is too pitiful a condition for the school board to insist on.

We believe, therefore, that in order to attract the best men and women into the profession of public school teaching, in order to enable them to keep mentally and physically in the best condition for intellectual work, and in order that they may at the proper time be honorably retired, the Legislature should pass a bill allowing every school committee in Massachusetts to create and maintain a public school teachers' retirement fund.

Training for High School Teachers.

The normal schools of Massachusetts prepare teachers chiefly and definitely for the primary and grammar grades. It is the belief of the Board that a more adequate preparation should be given to those normal school students who desire to teach in high schools. Normal schools were established to provide trained and enlightened teachers for the public schools; the high schools are an organic part of the public school system; therefore, the normal schools should provide teachers so educated that they are specifically fitted to teach in high schools. The State, through the Board of Education, has more and more worked to make a high school education possible without expense to the boys and girls of even the smallest and most remote towns in the State; the high schools in small towns are aided by State money; it is therefore a lack in the policy of education, as implied in action already taken, if teachers are not adequately equipped for high school conditions. These conditions demand special training. To teach technical subjects to mature students is different from teaching the rudiments of education to little children. The best teaching is only found when the teacher not only knows his subject, but knows by repeated experience just what the response of a boy or girl of a given age is likely to be. To teach over a child's head or to teach below his level of comprehension is not to teach at all; and the proper level is found almost entirely by repeated experience with just the age in question. It seems evident, therefore, that a practice school containing high school classes should be organized in connection with one at least of the normal schools, and that it should be under the guidance of teachers who are competent to give

instruction in high school methods of teaching, and in the special psychology of the high school age.

Industrial Education.

The Board of Education desires to accent its belief in the growing importance of industrial education, as expressed in the admirable report of the Commission on Industrial and Technical Education. We desire to express our sympathy with the conclusions of the commission, recorded on page 18 of their report, and our endorsement of the following recommendation made by them: —

> The commission recommends that cities and towns so modify the work in the elementary schools as to include for boys and girls instruction and practice in the elements of productive industry, including agriculture and the mechanic and domestic arts; and that this instruction be of such a character as to secure for it the highest cultural as well as the highest industrial value; and that the work in high schools be so modified that the instruction in mathematics, the sciences and drawing shall show the application of these subjects in industrial life with special reference to local industries, so that the students may see that these subjects are not designed primarily and solely for academic purposes, but that they may be utilized for the purposes of practical life.

The Board of Education has already by its action in the past supported the principles of and aimed to further education along industrial lines, notably in its encouragement of industrial drawing, of sloyd and other forms of manual training, of cooking and sewing in day and evening schools, of household arts and of school gardening. In the last report of the secretary attention was called especially to the value of school gardening in three aspects: its perpetual interest; its general practicability; its value in making geography, the processes of nature, physics, chemistry, drawing, and, in a wholly different way, literature, studies of more vivid meaning. Manual training is now a recognized feature in every normal school in the State. The final aim of industrial training, from the point of view of education, must be to help the student first to assimilate what the past has stored up for him, and then to contribute in his own way what shall further the progress of the next generation. We believe

that when industrial education recognizes this aim as fundamental it will not fall into the opposing danger either of becoming technical and temporary, or of becoming vague and inapposite.

In order to meet the requirements for industrial training which are becoming more and more prominent in education, the Board of Education favors a course in one of the State normal schools which shall prepare students to teach commercial branches. No such course is as yet offered in any of the State schools, and its absence tends to lower and to stunt the teaching of commercial branches.

Changes in Agents.

The Board of Education regrets that it is to lose the services of two of its agents, Mr. Grenville T. Fletcher and Mr. Walter Sargent. Mr. Fletcher resigns to secure needed rest, and Mr. Sargent to assume the position of director of drawing and manual training in the city of Boston.

Mr. Fletcher began his work as agent in September, 1888, and was assigned to the field comprising Berkshire, Franklin and Hampshire counties; Hampden County was afterwards added. Most of his work during these eighteen years has been in this western field, containing 98 towns and 6 cities. Among these were the smallest and poorest towns in the State, and the school conditions were the most unfavorable. To build up a healthy public sentiment, to advise school committees and encourage teachers, and after years of effort to bring into workable superintendency unions all the towns, has been Mr. Fletcher's task. To it he brought a peculiarly valuable training and experience, and personal qualities which fitted him to deal wisely and tactfully with rural school problems. The teachers and school officers of the four western counties have gratefully acknowledged the helpfulness of Mr. Fletcher's work. The Board takes this public opportunity to express its appreciation of his service.

Mr. Julius E. Warren of Barre, Mass., now acting as superintendent of schools in the union of Barre, Hardwick and Petersham, has been chosen to succeed Mr. Fletcher.

The Board has been fortunate in having in the responsible

position of agent for the promotion of the manual arts a man of Mr. Sargent's culture and temperament. By his visits of inspection, by his instruction in institutes and local meetings, and especially by bringing together for conference the supervisors of drawing, he has given new impulse and unity to the work. He has opened the way for his successor to bring the work in drawing more closely into touch with the newer form of industrial education in which the State is becoming interested. The Board finds pleasure in the fact that in the fruits of Mr. Sargent's future work the State will still share.

Mr. Frederic L. Burnham, supervisor of drawing in the public schools of Providence, R. I., has been chosen successor to Mr. Sargent.

ELLA LYMAN CABOT.
ALBERT E. WINSHIP.
THOMAS B. FITZPATRICK.
CAROLINE HAZARD.
JOEL D. MILLER.
KATE GANNETT WELLS.
CLINTON Q. RICHMOND.
GEORGE I. ALDRICH.

REPORTS

OF

NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ARTHUR C. BOYDEN, Principal.

Instructors in the Normal School.

Arthur C. Boyden,	History and civil polity, and the history of education.
Albert G. Boyden, Principal Emeritus,	Educational study of man, the principles and the art of teaching, school organization, school government, school laws of Massachusetts.
Franz H. Kirmayer,	Latin, Greek, French, German.
William D. Jackson,	Physical science, mathematics.
Charles P. Sinnott,	Geography, physiology and hygiene.
Harlan P. Shaw,	Chemistry, mineralogy, industrial laboratory.
Frank E. Gurney,	Classics, geometry, astronomy.
Clara C. Prince,	Vocal music, algebra.
Fanny A. Comstock,	Arithmetic, geometry.
Lillian A. Hicks,	Supervisor of practice work in the model school, child study.
Elizabeth H. Perry,	Drawing and manual arts.
L. Eveline Merritt,	Assistant in drawing.
Elizabeth F. Gordon,	Physical training.
Margaret E. Fisher,	Assistant in physical training.
Alice E. Dickinson,	English.
Caroline A. Hardwick,	Vocal culture and reading.
Florence I. Davis,	Biology, nature study.

Instructors in the Model School.

Brenelle Hunt,	Principal.
Adelaide Reed,	Ninth grade.
Martha M. Burnell,	Eighth grade.
Sarah V. Price,[1]	Seventh grade.
Sarah L. Wilson,[2]	Seventh grade.
Nellie M. Bennett,	Sixth grade.
Jennie Bennett,	Fifth grade.
Myra E. Hunt,	Fourth grade.
Mary L. Perham,	Third and fourth grades.
Sarah W. Turner,	Third grade.
Annie L. Sawyer,	Second grade.
Flora M. Stuart,	First grade.

Instructors in the Kindergarten.

Anne M. Wells,	Principal.
Frances P. Keyes,	Assistant.

Change of Principal.

On Aug. 1, 1906, Mr. Albert Gardner Boyden resigned from the principalship of the school, a position which he has held for forty-six years. At the same time he was appointed to the honorable position of principal emeritus, with charge of the in-

[1] On leave of absence. [2] Substitute.

struction in the "educational study of man" and the school laws of Massachusetts. Mr. Arthur Clarke Boyden, who for a number of years has held the position of vice-principal of the school, was promoted to the principalship.

Mr. A. G. Boyden graduated from this institution in November, 1849. The following winter he taught a grammar school in Hingham, and in July, 1850, received an appointment as assistant teacher in the normal school, a position which he held for three years under the wise counsel and help of the founder of the school, Nicholas Tillinghast. He was principal of the English high school for boys in Salem three years; sub-master of the Chapman school, East Boston, one year; and again first assistant in the normal school for three and a half years under the second principal, Marshall Conant. He was appointed principal of the school in August, 1860, and received the honorary degree A.M. from Amherst College. When he took charge, the school property consisted of a small, two-story structure, located on the site of the present school building, valued at about $10,000. The number of pupils in the school at that time was 67. The growth of the school under his management has been rapid; so that to-day the school property is valued at over half a million dollars, and the school numbers 251 normal students, with 443 children in the model school. Under his principalship 3,623 teachers have been graduated from the institution, and altogether he has had 5,397 students under his charge. He has brought to the school the highest ideals of the teacher's work, a thorough application of the principles of teaching in all the subjects of study, and an economical administration of its business affairs. The Board of Education deeply appreciates the long, unselfish and eminently successful administration of Mr. Boyden. To him in large measure is due the high place which the school occupies in the public estimation, and it is a source of congratulation that the institution is still to have the benefit of his valuable experience.

Changes in the Faculty.

For thirty years the department of vocal culture and reading has been in charge of Miss Isabelle S. Horne. By her faithful service and eminent fitness she brought this depart-

ment to a point of high efficiency. By her refined manner and sympathetic nature she endeared the students to her as to a personal friend. On account of failing health, she felt under the necessity of resigning the position, which has been filled by the appointment of Miss Caroline A. Hardwick, a teacher in the Curry School of Expression in Boston.

Miss M. Alice Emerson of the department of English resigned to pursue further studies at Oxford University, England; and Miss Alice E. Dickinson, a teacher in the normal school of Johnson, Vt., has been appointed as the head of this department.

A new department of biology, as distinct from the other sciences, has been established, and Miss Florence I. Davis, teacher of biology in the Fall River high school, has been appointed as instructor.

All of these appointments have proved to be strong additions to the teaching corps of the school.

In the model school Miss Mary L. Wallace resigned to be married, and Miss Clara R. Bennett resigned to continue her studies in Columbia University. Both of them were faithful and successful teachers, whose services we regretted to lose. Their places have been filled respectively by Miss Myra E. Hunt and Miss Mary L. Perham, teachers of successful experience.

Recognition of Normal Work by Colleges.

For a number of years the work of the three and four year courses has been recognized and accepted by the Lawrence Scientific School of Harvard University, and scholarships have been provided which make it possible for young men to continue their advanced work after graduation from the normal school. A broad culture or an intensive study of certain subjects is thus added to their professional preparation. In other colleges abundant credit has been granted to the young men. This year Harvard College has opened full privileges, with credit according to the work done in the normal school. A large proportion of the young men have in recent years received their degree from college, nearly all of whom have held honor distinctions. In turn, each year a number of college graduates have taken their professional preparation in the normal schools.

The next step is to gain a corresponding recognition from the women's colleges. Some united action should be taken by the normal schools to gain recognition in the colleges for their worthy graduates, as a means of encouraging a goodly number to continue their studies along advanced cultural lines. This may be one of the possible ways for increasing the professional preparation of teachers for the secondary schools of Massachusetts.

Natural Science Garden.

The idea of the natural science garden is the outgrowth of the nature study movement, and there is a real demand for some such practical outcome of this work. It is also the natural expansion of the school garden movement now developing so rapidly all over the country.

The purpose of the natural science garden is threefold. (1) It is to serve as an out-of-door laboratory for biological study and experimentation for normal students and children. It is the culmination of the laboratory method of study applied to living plants, and to the animals which are related to them as enemies or friends, especially insects and birds. As the chemical and physical laboratories gather together the apparatus for the successful experimentation that leads to the great laws of physical science, so this garden gathers the material and furnishes the opportunity for working out the great biological laws. It points to the practical study of agriculture and horticulture now being agitated as a part of industrial education. (2) It is to train normal students in the different phases of school ground decoration and in the development of school gardens. It becomes the model and practice department for this line of work, which, in order to be carried out effectively in this State, requires that the regular teachers of the schools should have practical instruction in doing the work. (3) It is to furnish such school gardens for the children as will be practically beneficial in training them to make their home gardens of the most value, esthetically and economically. It will also furnish a large amount of first-hand knowledge valuable in geography and nature study.

Such gardens are common in connection with the normal schools of other States, and their equipment is rapidly being

made adequate to the demands. Massachusetts should not fall behind other progressive States in this advance movement, but should be a real leader in the wisest plan that can be worked out.

The requirements for such a garden are: (1) a sufficient area of land, put into shape so that a plan may be laid broad enough to carry out the full idea with success; (2) trees, shrubs and plants, for the initial stocking of the garden; (3) a simple greenhouse, for winter storage, for instruction in slipping and potting plants and for raising certain plants needed for class study during the colder months; (4) the services of a gardener to assist in the work. The trees and plants required are mostly of native growth, and the normal students should do as much of the work in collecting them as is practicable. The range and varieties should be as extensive as the locality allows, and additions should constantly be made. All of these things are now provided, and gardens are in running order, in normal schools of other States.

The Bridgewater school is now ready for an equipment of this kind. Nature study has been well developed up to this point, the laboratory courses in biology are in great need of just such practical expansion, and a good beginning has been made in the home gardens of the children. The time is ripe for the next step. The school has no land of its own which is suitable for the purpose; there is, however, available land adjoining the school property the use of which may be had by the State for a natural science garden, provided the State will furnish funds for its development and support.

Statistics.

The statistics of the school for the year ending Aug. 31, 1906, are as follows: —

1. Number of students for the year, 251, — 31 men, 220 women; number in the entering class, 104, — 13 men, 91 women; number of graduates for the year, 82, — 6 men, 76 women; number receiving certificates for special courses, 16, — 1 man, 15 women.

2. Whole number of students who have been members of the school, 5,502, — 1,353 men, 4,149 women; number who have received certificates or diplomas, 3,722, — 905 men, 2,817 women;

of whom 315 have graduated from the four years' course, — 162 men, 153 women.

3. Of the 251 members of the school for this year, Plymouth County sent 73; Bristol, 48; Norfolk, 48; Middlesex, 20; Suffolk, 17; Barnstable, 9; Essex, 7; Hampden, 4; Worcester, 4; Dukes, 2; Franklin, 1; Nantucket, 1; the State of Maine, 8; New Hampshire, 3; Vermont, 3; Connecticut, 1; New Jersey, 1; Porto Rico, 1. Total from Massachusetts, 234, 12 counties and 69 towns being represented; from other States, 17.

4. The distribution of the students for the year was as follows: special courses, 23, — 4 men, 19 women; regular four years' course, 50, — 24 men, 26 women; intermediate course, 34, — 3 men, 31 women; kindergarten course, 3; elementary course, 141, — 0 men, 141 women.

5. The average age of those admitted was 20 years and 1 month; of special students, 26 years and 4 months; of students entering upon regular courses, 18 years and 9 months.

6. Of the 104 admitted, 2 came from colleges, 3 from normal and training schools, and 99 from high schools and academies; 18 had taught previous to coming.

7. The occupations of the fathers of those admitted were given as follows: mechanics, 33; farmers, 16; merchants and dealers, 12; professional occupations, 5; clerks, 4; salesmen, 4; superintendents and foremen, 4; contractors and builders, 3; sea captains, 3; railroad employees, 3; policemen, 2; agents, 2; teamster, manufacturer, fireman, laborer, night watchman, landlord, nurseryman, motorman, pomologist and apiarist, baker and coachman, 1 each; not given, 2.

8. Of the 104 students admitted, Quincy sent 10; Bridgewater, 9; Taunton, 6; Boston, 5; Brockton, 5; Whitman, 4; New Bedford, 3; Wareham, 3; Abington, Bourne, East Bridgewater, Easton, Fall River, Randolph, Raynham, Springfield, Waltham, West Bridgewater, Weymouth and Winthrop, 2 each; Brewster, Cambridge, Chatham, Chelsea, Duxbury, Everett, Freetown, Gardner, Hanson, Haverhill, Kingston, Lancaster, Lexington, Lynn, Marshfield, Milton, New Salem, Pepperell, Rehoboth, Rockland, Stoughton, Swansea and Woburn, 1 each; the State of Maine, 7; New Hampshire, 2; Vermont, 2; Porto Rico, 1.

GEORGE I. ALDRICH,
CAROLINE HAZARD,
Board of Visitors.

STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

JOHN G. THOMPSON,	Pedagogy.
E. A. KIRKPATRICK,	Psychology, child study and school laws.
PRESTON SMITH,	Natural science and school hygiene.
CHARLES S. ALEXANDER,	Mathematics.
FLORA E. KENDALL,	English.
NELLIE B. ALLEN,	Geography.
FLORENCE M. MILLER,	History.
ANNETTE J. WARNER,	Drawing.
ELIZABETH D. PERRY,	Music.
ABBY P. CHURCHILL,	Nature study and biology.
LILLIAN A. PHILLIPS,	Manual training.

INSTRUCTORS IN THE MODEL AND PRACTICE SCHOOLS.

[The teachers in the normal school supervise the teaching of their respective subjects in the model and practice schools.]

CHARLES S. ALEXANDER,	Principal of elementary practice schools.
MATILDA B. DOLAND,	Supervising principal at Day Street school.
MERCIE A. ALLEN,	Supervising principal at Edgerly school.
MARGARET M. SLATTERY,	Supervisor, grammar grades.
MATTIE A. COLE,	Supervisor, primary grades.
MARY MCCONNELL,	Supervisor, primary grades.
IDA M. AUSTIN,	Supervisor, primary grades.
L. FRANCES JONES,	Supervisor, primary grades.
CAROLINE G. HAGAR,	Supervising principal at Highland Avenue school.
FLORENCE E. SCOTT,	Principal of kindergarten.
GEORGIANA H. JUBB,	Assistant kindergartner.

The report of the Fitchburg State Normal School is brief, but sufficient. The school works with the idea that its business is to help its pupils make of themselves good teachers of our public schools. This supposes a mastery of the subjects to be taught, of the correct principles of teaching and some skill in the art itself. But the school pretends to do more than to point the way, remove some difficulties, perhaps, and foster an ambition. It cannot do the work for the pupils, nor can it give a diploma, until the pupil has shown an aptitude for the work both of management and of instruction under conditions as near as possible like those which exist in the public schools. During the past year the Fitchburg school has been more than usually successful in all parts of this work, and it is entering upon the

coming year with larger numbers and greater courage. Some changes have been made in the practice schools which will render these schools still more efficient. They are now, "if not first, in the very first line."

Considerable repairs are needed both in the main building and in the dormitory. Provision should be made for these, as they cannot be longer delayed without great inconvenience and damage to the property. It is also necessary and desirable that provision should be made for finishing into rooms the upper floor of the boarding hall, as more pupils are now seeking admission to the dormitory than can be accommodated under present conditions. This would also make the expense to the State less for maintaining the boarding hall. The usual statistics are added.

Statistics.

The statistics for the year ending Aug. 31, 1906, are as follows: —

1. Number of students for the year, 138 women. Number in the entering class, 60 women. Number of graduates for the year, 56 women, — 40 from the elementary course, including 3 who received diplomas also for the kindergarten course, and 16 from the advanced course. Number receiving certificates for special courses, 16.

2. Whole number of students admitted since the opening of the school (September, 1895), 652, — 641 women, 11 men (this number includes the class admitted in the fall of 1906).

3. Number of States represented in the membership of the school for this year, 5.

4. Number of counties in Massachusetts represented, 3.

5. Number of towns in Massachusetts represented, 31.

6. Average age of entering class, 20.5 years.

7. Number who have had experience as teachers, 21.

8. Occupation of parents: deceased, 6; farmers, 12; barbers, 3; physician, 1; chair makers, 3: superintendents of mill or managers of company, 6; superintendent of schools, 1; silver smith, 1; bookkeeper, 1; lumber dealer, 1; motorman, 1; butcher, 1; carpenter, 1; teamster, 1; retired, 3; milk dealer, 1; dentist, 1; printers, 2; manufacturer, 1; mechanics, 3; laborers, 5; blacksmith, 1; inspector of cloth, 1; iron moulder, 1; night watchman, 1.

Number of students in attendance Dec. 1, 1906, 141.

JOEL D. MILLER,
CLINTON Q. RICHMOND,
Board of Visitors.

STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, Principal.

Instructors in the Normal School.

Henry Whittemore,	School organization and government, pedagogy.
Amelia Davis,	Mathematics and astronomy.
Frederic W. Howe,	Chemistry, physics, dietetics.
Avery E. Lambert,	Biology, nature study and bacteriology.
Louisa A. Nicholass,	Household arts.
Annie B. Penniman,	Household arts, sewing.
Lillian A. Ordway,	Geography, psychology of childhood, Latin.
Mary C. Moore,	English language and literature.
Anna L. Moore,	History, history of education, civil polity.
Mary H. Stevens,	French, English.
Jane E. Ireson,	Elocution and reading.
Jennie E. Boody,	Drawing.
Frederic W. Archibald,	Music.
Mary Bennett,	Physical training, physiology.
Susan M. Emerson,	Sloyd.

Instructors in the Practice School.

Susan M. Emerson,	Ninth grade.
Anna M. Rochefort,	Eighth grade.
Grace Le B. Esty,	Seventh grade.
Nellie A. Dale,	Sixth and fifth grades.
Alice V. Winslow,	Fourth grade.
Louie G. Ramsdell,	Third and second grades.
Elizabeth A. Malloy,	First grade.
Phebe M. Beard,	Kindergarten.

Purpose of the School.

Though the specific object of the school is the training of young women to be teachers, an underlying purpose in all that is done is the development of the pupils into a noble womanhood, fortifying it with a non-aggressive self-reliance, with accurate thought and observation, and with an æsthetic appreciation of music, art and literature. It is but little benefit to future generations to send forth graduates supplied with information, but who lack culture; who are skilled in methods, but addicted to mannerisms; and who have neither the power of sympathy nor of inspiration.

Household Arts Course.

The most notable event of the recent school year has been the lengthening of the course of instruction in household arts to three years. Not only is a greater sum of theoretical knowledge thereby obtained, but the purpose and worth of the course itself acquires more dignity and utility as it is seen to lead to a fuller mastery of the working details of a well-ordered home, whether in private or institutional life. Moreover, as teachers the graduates are far better equipped with the ability to separate the essential from the non-essential in their later pedagogic and home application of household arts, lest there arise a tendency to "fads" and to adapt their instruction to the environment of their pupils.

To the former subjects taught is now added more laboratory work in household sanitation and chemistry, and also training in the reading of building plans and specifications, in bookkeeping, advanced sewing and manual training, while evening conferences on economics will further the consideration of social relations to the body politic.

The Practice School.

This part of the normal school is housed in seven buildings: May and Wells halls, the Stone building in the center of the town, four schoolhouses at South Framingham and one at Nobscot.

At the latter place the school is an ungraded one, which has enabled the principal, Mr. Whittemore, to carry out his purpose, formed three or four years ago, of adding an ungraded school to the other grade schools, in which his normal pupils should observe and teach. Many graduates often find themselves at a disadvantage when first employed in an ungraded school for which they have had no previous training, therefore the arrangement now effected at Nobscot is especially gratifying.

The practice school has never had a principal of its own. Now that it has increased so largely in numbers and is so variously located, and the normal school proper, with its attendant duties of making the dormitories not merely homes but

centers of intellectual influence for the pupils, calls for such arduous labor from the principal, it is very desirable that a practice school principal should be appointed. Thus, though still lacking in proper equipment of space, the school could be more unified than at present is possible, and a stronger impetus given to its graded courses of study. The matter is a financial rather than a pedagogical problem, for the expediency of a separate principal for a practice school, yet working with and for the principal of the normal school proper, has become an accepted fact in the development of education.

Changes in the Faculty.

The resignation of Miss Leila J. Webster, who was the valuable teacher of the seventh grade in the practice school, left a vacancy which was filled by the appointment of Miss Grace Le B. Esty of Framingham, a graduate of the school in the class of 1900.

Dormitory Needs.

The two dormitories, Normal and Crocker halls, are ancient and meagre in conveniences, compared with the more recent school boarding halls of the State. Worse still, those at Framingham do not begin to furnish room for the many students who apply for admission and it is next to impossible to find homes for them in the town; consequently, more than 20 applicants were turned away at the opening of the fall term. Parents, as well as pupils, almost always have some special reason why they prefer one normal school to another; for, though all are equally good, yet each has specific emphasis on varying points of procedure. Therefore, it constantly happens that many girls, who otherwise would become teachers if they could be admitted to the school of their choice, abandon their hoped-for profession and adopt some other vocation with more or less of discontent and success. If Crocker Hall could be enlarged and partially refitted, and a bigger dining room, a more convenient kitchen and storeroom and some additional sleeping rooms added, the immediate outlay would be repaid in course of time by increase in number of boarders.

Land for Play and School-garden Purposes.

A need, also urgent, is that of land for play and school-garden purposes. The building sites on Normal Hill are so desirable that one after another is now dominated by a dwelling house; and the land that was generously allotted by private owners to the school for out-door games is becoming so circumscribed that but little space for more than tennis now belongs to the school. Yet the expense attaching to any such purpose instantly rises as a deterrent to action, though the time will surely come when it will seem a narrow policy not to have acquired more land.

Gifts.

The school has received a number of valuable gifts: from Mrs. Frances E. Morton of Framingham, a beautiful large rubber plant; from Miss Emma Harris of Woonsocket, R. I., and from Miss Julia Sprague of Framingham, a large and valuable collection of books for the library; from the Glee Club of the school, a picture of Beethoven; from Miss Emily W. Healey, several framed photographs; and from the class of 1906 a class tree for the lawn, — a blue spruce, — and a stained-glass window for the main hall, that embodies the seal and motto of the school, originated in the time of Father Pierce, "Live to the Truth."

Lectures and Entertainments.

Mr. George W. Cable of Northampton gave readings from his own works, and Miss Clapp of Framingham a talk upon her travels in Greece.

Miss Caroline Caswell of Boston presented the subject, Settlement Work, and Mrs. K. G. Wells spoke on Concentration, Comradeship, Courage and Culture.

Prof. John M. Tyler of Amherst College gave two lectures upon the following subjects: The Child entering School, and The Child in the Grammar School.

Mr. Walter Sargent, agent of the State Board, spoke to the school upon Drawing.

Prof. M. V. O'Shea of the State University of Wisconsin lectured upon the topic, Hidden Forces in Life and Education.

Mrs. Margaret Montgomery Goodale, a former teacher, gave a very interesting talk to the normal school and practice schools upon The Flags of the Nations.

A fine concert was given in the Plymouth Church, Framingham, by the Weber Quartette, to which the school was invited.

The Glee Club of the school gave two very acceptable concerts.

Statistics.

1. Number of pupils admitted September, 1905, 93. Number who graduated in June, 1906, 85; of this number, 69 graduated from the regular two years' course, and 16 from the department of household arts. Whole number of pupils for the year 1905–06, 204. They were divided as follows: seniors, 91; juniors, 112; specials, 1; total, 204.

2. Average age of pupils admitted in September, 1905, 19 years and 4 months.

3. Occupations of parents: farmers, 12; mechanics, 22; bankers, 3; manufacturers, 10; merchants, 22; treasurers, 2; managers, 6; professional, 5; salesmen, 2; policemen, 2; watchman, 1; teamster, 1; bookkeeper, 1; army officer, 1; custom house officer, 1; lamp lighter, 1; expressman, 1; total, 93.

4. Residences of 93 pupils admitted Sept. 1, 1905: Massachusetts: Middlesex County, 44; Worcester County, 17; Hampden County, 4; Hampshire County, 2; Essex County, 5; Suffolk County, 1; Norfolk County, 8; Bristol County, 7; total, 88. From other States: Colorado, 1; Vermont, 2; New Hampshire, 1; Kansas, 1; total, 5. From Massachusetts, 88; from other States, 5; total, 93.

KATE GANNETT WELLS,
T. B. FITZPATRICK,
Board of Visitors.

STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

W. A. BALDWIN,	Psychology, pedagogy, history of education.
BERTHA M. BROWN,	Biology, mathematics.
DIXIE L. BRYANT (substitute),	Biology, mathematics.
ANNIE S. CROWELL,	Physical training, physiology.
HANNAH M. HARRIS,	English, history.
MINERVA A. LAING,	Chemistry, mineralogy, drawing.
CHARLES H. MORRILL,	Geography, manual training, physics.
EDMUND F. SAWYER,	Vocal music.

INSTRUCTORS IN THE TRAINING SCHOOL.

WILLIAM F. JOHNSON,	Principal, eighth and ninth grades.
ANNIE H. CHADWICK,	Sixth and seventh grades.
JULIA W. SWIFT (substitute),	Sixth and seventh grades.
GERTRUDE M. WILCOX,	Fifth and sixth grades.
MABEL M. KIMBALL,	Principal of primary department, fourth grade.
SARAH S. FORD,	Second and third grades.
IDA E. FINLEY,	First grade.

FACULTY.

No permanent changes have been made in the teaching corps for the current year. Miss Crowell, who was granted a leave of absence last year, has returned. Miss Harris, having enjoyed the summer and fall in Europe, is again in her place. It is due Mrs. Elizabeth Mathews-Richardson, who had charge of the work of Miss Harris during the first quarter, to say that she did her work very acceptably, entering into the spirit of the school from the first. Miss Brown entered upon the duties of the year, but after about two weeks decided that her health would not admit of continuing through the year. She was, therefore, granted a leave of absence for one year, and Dr. Dixie Lee Bryant was appointed as substitute. Dr. Bryant is a graduate of the Institute of Technology, has studied at Woods Hole and has spent three years in Germany. She taught one year in the State Normal School at Plymouth, N. H., and for ten years under Dr. McIvers in the Normal and Industrial School at Greensboro, N. C. The school seems to be fortunate in securing so strong a woman as a substitute teacher. Miss

Annie H. Chadwick of the training school faculty was granted leave of absence for the first half of the current year, and she is spending this time in more fully preparing herself for the teaching of domestic science. Miss Julia W. Swift is acting as substitute for Miss Chadwick. Miss Swift is well prepared for her work, and has had very successful experience in teaching in the training schools of the North Adams Normal School, the Willimantic Normal School and the Farmington Normal School.

The school is progressing in its attempts to aid worthy, promising young men and women needing such assistance. Some of the ways in which this is being done were set forth in the last catalogue issued by the school, from which the following quotations are taken: —

Students' Loan Fund.

From the first year of the Hyannis Normal School there has been a loan fund, and fully 10 per cent. of the graduates of the school have needed to avail themselves of its help to get through the school. It is interesting to note that these same graduates have been among the most successful.

The loan fund, the work of which is described above, was made up of money loaned by friends of the school for a term of five years. It was to be returned to the owners at the end of this term of years.

Each year for the first three years a new set of people was found who were willing to loan money in this way. But gradually it has become harder to find new people. As each series has matured and the money has been returned to those who were kind enough to loan it, some have said "You ought to have a permanent fund, and I am glad to contribute this toward such a permanent fund." And so a permanent loan fund has been started, which now amounts to about $1,000. It seems desirable that this should be rapidly increased.

It has been found that those applicants who are worthy, and are really in earnest in the matter, can in some way secure one-half of the required amount if they can borrow $100 from this loan fund. It is therefore proposed to loan to each student who applies, and proves worthy, $100 per year, the same to be repaid in five years or less.

This plan helps the pupil to help himself. It gives the school the best kind of students with whom to work. It furnishes the schools of the State with teachers who appreciate something of

what has been done for them. The State needs many more of such teachers, and the school can easily accommodate a larger number of students.

This money goes out and comes back, only to again go out in a never-ending stream of benefactions.

The need for this fund was presented to the faculty and students at the summer session of 1905. Within a few days $214 had been subscribed. A committee was also appointed to communicate with former members of the school regarding the matter. The response has been generous.

The matter was recently presented to the winter session students. As few of these have ready money to spare, it was decided that those who could not contribute money might aid the cause by making articles for sale, such as baskets, footstools and dress suit cases. These will be sold, and the profits will go to the fund.

It was also decided that a series of entertainments of such a character as not to interfere with the regular school work should be given, and it now seems probable that about $100 will be realized from this source. Thus it will be seen that the school is trying to help its own members to help themselves.

The Hyannis State Normal School Endowment.

The question of the appropriateness of endowments for our normal school was so well presented in a recent editorial of the Hyannis "Patriot" that it is here given in full: —

The people of Cape Cod are well known for their loyalty to the interests of Cape Cod. Nearly everyone who has grown up in this atmosphere, no matter to what place he may have migrated, is anxious to do something for the best future development of the Cape and her people. One way in which such a desire may be realized has been pointed out and put into practice by our lamented fellow citizen, Gustavus A. Hinckley. Mr. Hinckley was anxious to do something to help young people who needed such help to avail themselves of the opportunities for higher education offered at our own State normal school. In his own quiet way he investigated matters very carefully, for several years. He repeatedly visited the State House officials with competent counsel, and talked with many prominent men. Meanwhile he was providing the means for one student to take a course at the school. Mr. Hinckley became satisfied that our normal school ranked high among normal schools; that it would furnish a student with a practical education for life, and prepare him for teaching. The outcome was that Mr. Hinckley made provision in his will for a fund of $5,000, the income from which will be used in paying the expenses of a student or students at this school.

The wisdom of such a gift seems above question. Many bright, promising young people are growing up on the Cape who need just

such assistance. The parents are often unable to provide the money needed for a higher education, and the opportunities for young people to help themselves here at home are not as many as formerly. On the other hand, we understand that the demand for well-trained teachers was never so great as at the present time. As soon as one of these young people completes a normal school course he finds a place waiting for him. If successful as a teacher, he is independent from that time. He may continue to teach, he may earn money and continue his studies in college or technical school, or he may go into business. Is there any better way in which the highest interests of the people of the Cape can be advanced?

If every real friend of the Cape would at once put into his will a provision for some fund similar to that left by Mr. Hinckley, whether the sum was $100 or $10,000, within a very few years the school would be able to provide for all deserving students. Arrangements might be made for the money to be paid back into the fund within five years, after the student had saved it, as is now being done in connection with the students' loan fund. This is a small fund, which has been in very successful operation since the foundation of the school, and which the students of the school are now trying to make into a permanent fund.

It is well to remember that the Hyannis Normal School is the institution of higher education of the Cape. It provides a two years' course which prepares for teaching in the grades, and a four years' course which is equal in educational training to a regular college course. Why should it not be as well endowed with scholarships and special funds as are the modern colleges?

It has been suggested that, although Mr. Hinckley made his contribution to the school in his own modest way, without expectation of special honor, a fitting recognition of the act would be the christening of the dormitory the Gustavus Hinckley or Hinckley Hall, or Gustavus Hinckley Hall.

Other Contributions.

Other encouraging and interesting contributions which have been recently made are as follows: A clergyman who is not rich in money but who is interested in the school sent his check for $300. A retired Cape Cod school teacher, who has always been interested in the school, gave $10, with the request that her name should not be mentioned; in a few days she returned, saying that she wished to add $10 more to that already contributed. Very recently a Hyannis lady, who desired her name and the amount to be kept secret for the present, made provision in her

will for a considerable sum of money to go to the school at her death. If other good friends of Cape Cod will follow these examples, the school will soon be able to care for a goodly number of deserving young people who need such assistance.

Sewage Beds.

During the spring it was found that the sewage beds were becoming stopped, and that some relief must be found. The State Board of Health granted their approval to a plan for the extension of the present beds. It was found possible to more than double the capacity of the beds at an expense of $434, or about half the first cost of the plant.

Coal Pockets.

When the buildings were erected, a coal pocket having a capacity of about 57 tons was placed adjacent to that corner of the building in which the boilers are located. The amount of coal required per year is something over 200 tons. It has, therefore, been necessary to store the greater part of this coal out of doors and at some distance away. This has been detrimental to the coal; it has necessitated double carting and much inconvenience. For several years it has seemed desirable to enlarge this coal pocket, but the necessary funds have not been available. This year it was decided to undertake the matter. The result is a coal pocket with a capacity of about 250 tons, conveniently located and constructed of reinforced concrete.

Statistics.

1. Number of students registered Sept. 13, 1906: men, 7; women, 45; total, 52.

2. Number of students registered since Sept. 9, 1897: men, 50; women, 291; total, 341.

3. Average age of entering class when admitted: 19 years, 4 months.

4. Number who have had experience as teachers, 3.

5. Residence of pupils: Barnstable County, — Barnstable, 11; Bourne, 1; Chatham, 3; Sandwich, 2; Provincetown, 3; Yarmouth, 1; total, 21; Bristol County, — Rochester, 1; Dukes County, — Gay Head, 1; Hampden County, — Springfield, 1; Plymouth County, — Plymouth, 1; Canada, 1; Porto Rico, 1.

6. Occupation of pupils' parents: captains, 3; fishermen, 4;

dealers in fish, 3; carpenters, 2; cranberry grower, hotel keeper, coal dealer, dealer in ice cream, commercial traveller, barber, grocer, postal clerk, machinist, farmer, lumber dealer, each 1.

Summer Session.

The summer session continues to be an important feature of this school. During the past year 166 teachers were enrolled, being distributed among the States as follows: Massachusetts, 133; Vermont, 3; New Hampshire, 6; Connecticut, 1; Rhode Island, 1; New York, 7; New Jersey, 2; North Carolina, 3; Maryland, 3; Ohio, 2; Arkansas, 1; California, 1; and Porto Rico, 4. The distribution of those from Massachusetts was as follows: from the eastern part, 98; from the central, 20; and from the western part, 15. Of these, 141 were women; 24 men; 17 were superintendents of schools, supervisors or special teachers; 25 were college graduates; 44 were graduates of normal schools; 60 had taught or superintended ten years or more. It will thus be seen that the grade of students is high. No person was allowed to take more than two subjects, and the majority took but one each. They were distributed by subjects as follows: drawing, 41; industrial course, 42; geography, 38; pedagogy, 35; arithmetic, 28; music, 26; supervision, 12; botany, 7.

The faculty of this summer school remains practically the same from summer to summer; this gives to it a stability and continuity of purpose and accomplishment rare in summer schools. The faculty of the summer session consisted of the following: —

W. A. Baldwin,	Principal.
Edmund F. Sawyer,	Instructor in music, State Normal School, Hyannis.
Mary E. Laing,	Formerly instructor in pedagogy, State Normal School, Oswego, N. Y.
Charles P. Sinnott,	Instructor in geography, State Normal School, Bridgewater.
Frederic L. Burnham,	Supervisor of drawing, Providence, R. I.
H. Anna Kennedy,	Supervisor of nature study, Quincy.
Mabel M. Kimball,	Supervisor of industrial work, Hyannis.
Annie H. Chadwick,	Eighth grade, Hyannis.
Ida E. Finley,	First grade, Hyannis.
William F. Johnson,	Principal of Hyannis Training School.
Clarence F. Carroll,	Superintendent of Schools, Rochester, N. Y.
C. N. Kendall,	Superintendent of Schools, Indianapolis, Ind.
Frank A. Manny,	Principal of Ethical Culture School, New York City.
Charles H. Morrill,	Instructor in geography, State Normal School, Hyannis.
Gertrude E. Bigelow,	Instructor in arithmetic, Boston Normal School.

The following statistics may also be of interest: —

Average age (years),	31
Average years of experience,	7
Number of students graduated from college,	25
Number of students graduated from normal schools,	44
Number of students graduated from training classes,	7
Number of students graduated from high schools,	109
Number of students who had attended college,	18
Number of students who had attended normal schools,	40
Number of students working for a diploma,	62

CAROLINE HAZARD,
GEORGE I. ALDRICH,
Board of Visitors.

STATE NORMAL SCHOOL, LOWELL.

FRANK F. COBURN, Principal.

Instructors in the Normal School.

Frank F. Coburn,	Psychology, principles of education.
Hugh J. Molloy,	Physics, chemistry and arithmetic.
Mabel Hill,	History, civil government and history of education.
Anna W. Devereaux,	Kindergarten theory and practice and child study.
Amy R. Whittier,	Drawing and manual training.
Mary Hussey,	Reading, vocal training and physical culture.
Mabel C. Bragg,	English grammar, rhetoric and literature.
Sarah C. Whelton,	Music.
Clarence M. Weed,	Nature study and physiology.
Nancy M. Bragg,	Geography, algebra and geometry.

Instructors in the Model Schools.

Lowell Division.

Cyrus A. Durgin,	Principal.

Assistants.

Belle A. Prescott,	Assistant.
Charlotte M. Murkland,	Assistant.
Belle F. Batchelder,	Assistant.
Blanche A. Cheney,	Assistant.
Amy L. Tucke,	Assistant.
Maria W. Roberts,	Assistant.
Mary E. Walsh,	Assistant.
Caroline H. McGarvey,	Assistant.
Mary I. Howe,	Assistant.
Alice D. Sunbury,	Assistant.
Frances Clark,	Assistant.
Alice G. Barrett,	Assistant.
Sara E. Ames,	Assistant.
Essie E. Roche,	Assistant.
Bridget Smith,	Assistant.
Mary C. Ladd,	Assistant.
E. Belle Perham,	Kindergarten.
Edith A. Andrews,	Assistant kindergarten.
Amy R. Whittier,	Drawing.
Sarah C. Whelton,	Music.

Lawrence Division.

Leila M. Lamprey,	Principal.

Assistants.

Ella F. Eastman,	Assistant.
Annie L. O'Connor,	Assistant.
Emma J. Greenwood,	Assistant.
Mary E. Mahoney,	Music.
Annie T. McCarthy,	Drawing.

Harriet A. McKone,	Assistant.
Nellie S. Winchester,	Assistant.
H. Frances McDonnell,	Assistant.
Mary A. Mahoney,	Assistant.
Grace L. Conlin,	Assistant.
Mabel L. Mullen,	Assistant.
Laura K. Prescott,	Assistant.
E. Mabel Andrews,	Assistant.
Ellen C. Tobin,	Assistant.
Ethel C. Ramsey,	Assistant.
Ada B. Locke,	Assistant.

In General.

The work of the year has been progressive and harmonious, yet the standard of admission grows somewhat higher with each successive twelve months. Outside of the regular curriculum of the school, much is done in the way of general culture for the pupils, and in the acquisition by them of quiet, courteous manners, which will be of large importance to them as future teachers.

The second year of their attendance at the school always shows a marked increase in their love of knowledge for its own sake, and in their womanly dignity. A pupil is not encouraged to enter upon the work of the second year unless she is likely to make good her intention to become a wise and skilful teacher.

Model Schools.

With the beginning of the school year in September a new method of supervision was introduced at the Bartlett school, Lowell division, which is working admirably. Though different members of the normal school faculty will supervise the subject matter of the work done at the model school by normal girls in training, yet the direct, personal supervision of each pupil thus fitting herself to be a teacher is assigned to the five departmental teachers of the model school. By the introduction of this method the normal school instructors have more time for their regular normal classes in the normal school proper, and the pupils in training also come under a more unified supervision than before.

In the new Gilbert E. Hood school at Lawrence there has been no special change in the excellent methods of supervision which were fully described in the last annual report of the Board. The pupils of the Lowell State Normal School, who

desire to receive the city certificate of Lawrence, which enables them to teach in that city, receive their final training under the wise and skilful supervision of Miss Lamprey, principal of the Hood school, — the Lawrence division of the State Normal School at Lowell.

The Kindergarten.

The crowded condition of the Bartlett school necessitated the removal of the kindergarten to the State Normal School building. The kindergarten is now housed in the largest and sunniest room on the entrance floor, which, by a few changes made at slight expense, is excellently fitted for it. This change of location is also of advantage to the normal pupils, by increasing their regular and incidental opportunities for observation in a kindergarten, thus reflecting the other end of education and discipline from their own older standpoint.

In this room meet also the special students of kindergarten methods and the post-graduates for specialized instruction from Miss Devereaux. The room is also used for other purposes at hours which do not conflict with its occupancy by the little children. Certainly utilization of space is to be deemed of economic importance, and there seems to be no good reason why several subjects cannot be taught in the same lecture room.

Physical Conditions.

Most careful attention is paid to the health of the pupils. The examining physician, Dr. Cawlyn, and the instructor in physical culture, Miss Hussey, supplement each other's work. The careful physical records made by Miss Hussey furnish the basis for comparative data and subsequent re-examination concerning the health of each student. They are also of great importance in the constant adjustment of gymnastic training to special cases of weak or defective bodily conditions. In addition to the teacher's personal instruction, a course of lectures upon general hygiene has been given by a physician of Lowell.

Gifts of the Graduating Class.

The school is gradually being enriched by the annual presentation of some noble photograph, bas-relief or cast. The

serial nature of some of the gifts, as in the slow accumulation of copies from various parts of the Panathenaic procession, has given a much-desired unity to the adornment of the walls.

Lectures.

The lectures for the past year have been as follows: —

Mr. William H. Dudley — American Birds.
Prof. George Barton — Geology.
Mr. Henry T. Bailey — Athens.
Mr. Walter Sargent — The Relation of the Public Schools to the Art Museum.
Prof. Paul M. Pearson — Kipling.
Dr. Leon H. Vincent — Thackeray; Franklin; American Humor.
Prof. H. H. Powers — Story Tellers in Art; Phidias and the Parthenon; The Art of the Middle Ages.
The graduation address was given by Supt. Bernard M. Sheridan of Lawrence.

Statistics.

The statistics for the school year ending Aug. 31, 1906, are as follows: —

1. Number of students for the year, 143.
2. Number in entering classes: junior, 67; senior, 1; special, 5.
3. Number of graduates for the year, 51.
4. Total number of graduates, 471.
5. Whole number of students admitted since the opening of the school, 800.
6. Average age of pupils admitted, 18 years, 6 months.
7. Of the entering class, Middlesex County is represented by 10 towns, Essex County by 2 towns. Lowell furnishes 30 pupils; Lawrence, 14; Chelmsford, 8; Methuen, 3; Woburn, 3; Billerica, Burlington, Carlisle, Medford, Tewksbury, Westford, Winchester, Pelham, N. H., Hudson, N. H., 1 each.
8. Occupations of pupils' fathers: farmers, 12; city officials, 10; carpenters, 6; machinists, 5; merchants, 5; laborers, 4; painters, 3; engineer, 1; druggist, 1; contractor, 1; physician, 1; clergyman, 1; conductor, 1; collector, 1; foreman, 1; not reported, 14.

THOMAS B. FITZPATRICK,
KATE GANNETT WELLS,
Board of Visitors.

STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, Principal.

Instructors in the Normal Department.

Frank F. Murdock,	Psychology, pedagogy.
Roland W. Guss,	Natural science.
Lyman R. Allen,	History, geography.
Willis B. Anthony,	Industrial training.
Rosa E. Searle,	Mathematics, music.
Mary A. Pearson,	Drawing.
Annie C. Skeele,	Physiology, physical culture.
Mary L. Baright,	English, reading.

Instructors in the Grammar and Primary Departments.

Donna D. Couch,	Principal.
	School organization and management in the normal department.
Harriet P. Ryder,	Ninth grade.
Winifred I. Wright,	Ninth grade.
Althea E. Hyde,	Eighth grade.
Mary L. Perley,	Seventh grade.
Hannah E. Magenis,	Seventh grade.
Hannah P. Waterman,	Sixth grade.
Margaret F. Maloney,	Substitute, sixth grade.
Eloise A. Gaston,	Fifth grade.
Emily D. Stacy,	Fifth grade.
Freelove Clarke,	Fourth grade.
Susan G. Lombard,	Fourth grade.
Annie M. McKenzie,	Third grade.
Ida R. Chapin,	Third grade.
Emma H. Tingue,	Second grade.
Edith A. Root,	Second grade.
Annie J. Lamphier,	First grade.
Florence M. McVey,	First grade.
Juliette E. Hills,	Assistant first grade.
Alice Boyd,	Assistant first grade.
——— ———,	Musical interpretation.

Instructors in the Kindergarten Department.

Eliza Graeme Graves,	Principal.
Gertrude E. March,	Assistant.
Elva L. Brownson,	Assistant.

The Faculty.

The return after leave of absence of Misses H. P. Waterman and E. D. Stacy; the resignation of Miss Maud V. Elmer to accept a position in Brookline; the appointment of Miss Ida R. Chapin in place of Miss Agnes E. Miner, who resigned to be married; the resignation of Mr. A. E. Dodd to become supervisor of manual training for the city of Trenton; and the

appointment of Mr. W. B. Anthony, then supervisor of drawing in the city of North Adams, as his successor, — are the more important changes in the faculty. The substitute teachers and assistants in primary grades rendered efficient service through the year, and secured more remunerative positions in June.

Industrial Training.

During the past few years industrial training has matured into excellent forms of instruction and construction well adapted to the stages of childhood and youth. Printing by boys of the ninth grade and wood work by boys of the older grammar grades and from the high school have made a real and certain connection with and preparation for the trades. The pupils trained are all the children of the training school, the boys of all the eighth and ninth grades of the city, and an optional class from the high school.

The purpose of industrial training, as undertaken here, is to afford opportunity of experience in doing and making things which to the worker are worth persistent effort; to cultivate in the worker wisdom, skill, usefulness and responsibility. The process of doing or making satisfies the impulse to do things, tests thought and stimulates invention, trains senses and muscles to coördinated, skilful accomplishment; reveals the meaning, difficulty and value of labor; induces understanding through participation; makes clear the limitations of self, the interdependence of persons; enforces the economy of material, effort and time; and fixes due measure of responsibility upon the producer. The product is worth the effort if the maker has a real interest in the making, if the object made is of real value in the household, if it has significance as a trade product. In the process and the product arises, under instruction, the recognition of industrial work as applied science and applied art.

Many of these aims remain subconscious elements of understanding and motive, but they are none the less active and powerful. The industrial work for the children and the students is organized to realize these aims, and does so with a high degree of success.

The kinds of work undertaken are modeling in clay; weaving with sticks, paper, threads and raffia; basketry; cardboard

and paper construction; whittling and carpentering; bent iron work; hammering and cutting copper; printing; sewing and embroidery to some extent; gardening outdoors and indoors. The problems increase in difficulty as the individual gains in ability, the purpose throughout being, so far as circumstances permit, to suit the work to the needs of the individual. Relative difficulty and interest are considered important factors. The normal students follow the line of work indicated for the training school, the object of the work, owing to the very brief time available, not being to prepare supervisors of manual training, or to furnish an adequate course for individuals in whose previous education hand training has not played an important part; but rather to enable the students by personal experience to perceive the value and to appreciate the importance of hand work as an active factor in early education, and to acquire the purpose and skill to undertake some form of manual training in the schools to which they will go.

The present problems are the relating of the industrial and fine arts and the expression of number and form in practical construction. Rapid and real progress is being made, and is especially due to the kind of preparation the instructor has made to these ends. A full course at the Normal Art School, successful supervision of drawing, a season of hand work with a superfine carpenter, a season of machine work in a large woodworking mill, continuous instruction of children and the study of their development and interests, have been the chief elements in this preparation. The child, the material, the vocation and the social elements all demand recognition. The omission of any one of these factors prevents full success in this movement.

Physical Culture.

The extension of the time for physical training has produced the expected good efforts. The time now required, two hours per week throughout the course, is too short for the preservation of the play spirit so essential to spontaneity and vigor in the teaching of children. Further relief from the great strain characteristic of the work of normal schools of this State must come by modification of the courses of study or by lengthening the period of the same.

Course of Study.

The two years' course as prescribed by the Board of Education now includes twenty-eight subjects, exclusive of work in the practice school. This requires consideration of seven subjects each half year, — twenty-five to twenty-eight active recitation periods out of a total of thirty during each week of five school days. High attainment of professional scholarship and facility of instruction and control cannot be secured under these conditions. A change in the number of subjects or in the number of years is imperative. Without it the public schools must fall even farther behind the best business practices.

Graduate Body.

The graduates of the school continue to attain honor and success in teaching, and to reflect great credit upon the school. A class of 49, including 2 from the course for college graduates, graduated in June, and, as usual, all were employed in teaching in September. Requests for as many more were made during the past three months.

Statistics.

Statistics for the year ending Aug. 31, 1906, are as follows: —

1. Number admitted in September, 1905: regular courses, 29; special courses, 5; vacation study, 18, — all women. Whole number enrolled during the year, 106. Number of graduates, 49.

2. Average age of entering class, 21 years, 9 months.

3. Whole number of students who have been members of the school, 508.

4. Number of students from Massachusetts: Berkshire County, 64; Essex County, 1; Franklin County, 21; Hampden County, 6; Hampshire County, 3; Middlesex County, 2; Norfolk County, 1; Worcester County, 3; Plymouth County, 1; Bristol County, 1; Vermont, 2; New York, 1. Cities and towns represented: Massachusetts, 43; scattering, 3.

5. Occupation of parents: farmers, 10; merchants, 5; carpenters, 5; office clerks, 4; stone cutters, 2; painters, 2; section fore-

men, 2; truckmen, 2; mill overseers, 2; insurance agents, 2; lawyers, 2; mechanics, 2; mill operatives, 2; paper makers, 2; gardener, bricklayer, teacher, plumber, railroad agent, physician, librarian, millwright, fireman, boiler tender, contractor, box cutter, engraver, laborer, promoter, hotel proprietor, coachman, dealer in wood. butter maker, each 1.

CLINTON Q. RICHMOND,
ALBERT E. WINSHIP,
Board of Visitors.

STATE NORMAL SCHOOL, SALEM.

J. ASBURY PITMAN, Principal.

Instructors in the Normal School.

Joseph Asbury Pitman,	Theory and practice of teaching, history of education.
Harriet Laura Martin,	Algebra, geometry.
Jessie Putnam Learoyd,[1]	Botany, English.
Charles Eugene Adams,[1]	Geology, physics, chemistry.
Charles Frederick Whitney,[1]	Drawing.
William Charles Moore, S.B.,[1]	Geology, geography.
Mary Alice Warren,[1]	Biology, physiology, physical training.
Isabella Gertrude Knight, A.B.,	Library.
Gertrude Brown Goldsmith, A.B.,[1]	Biology, psychology.
Fannie Boutelle Deane (secretary),[1]	History.
Sarah Louise Baker,[1]	English, arithmetic.
Helen Hood Rogers,[1]	Reading, physical training.
Cassie Lucretia Paine,	Critic.
Fred Willis Archibald,[1]	Music.
Maud Oldham,	English and literature.

Practice Schools.

Alton Clifford Churbuck,	Principal, fifth to eighth grades.
Maud Sarah Wheeler,	Fifth to eighth grades.
Marjorie Huse,	Fifth to eighth grades.
Bessie Jordan Welch,	Fifth grade.
Mabel Lucile Hobbs,	Fourth grade.
Mary Elizabeth James,	Third grade.
Delia Frances Campbell,	Second grade.
Helen Merrill Dillingham,	First grade.

Kindergartens.

Louise Farrington,	Normal school building.
Alice Martha Wyman,	Bertram school building.

Appointment of a Principal.

The most important event in the school year was the appointment of Mr. Joseph Asbury Pitman, superintendent of schools in Marlborough, Mass., as principal of the Salem Normal School. Mr. Pitman entered upon his service at the beginning of the second term of the school. Through his wise, skilful and untiring guidance, and through his considerateness and fair-mindedness, the school has gained in vigor and unity and has developed in a way that gives great satisfaction to the board of visitors.

[1] These teachers also teach and supervise in the practice schooi.

Changes in Teachers.

With the exception of the election of a principal, no changes have occurred in the faculty of the normal school. At the close of the school year Miss Mabel T. Burnham and Miss Maude M. Brickett resigned their positions in the practice school, and they were succeeded by Mr. Alton C. Churbuck, formerly principal of the Franklin school, Melrose, and Miss Marjorie Huse of the Williams school, Newton. Miss Alice M. Wyman also resigned her position as assistant in the kindergarten, but returned later in the year to assume the principalship of the new kindergarten opened in the Bertram school.

Model and Practice Schools.

Until the present year the principal of the normal school has also acted in the capacity of principal of the practice school; but many of the actual duties usually devolving upon the principal of an elementary school have been performed by the critic teacher. This arrangement proved to be an admirable one until the membership of both normal and practice schools increased to such proportions that one person could not do justice to both lines of work. A principal of the practice school was accordingly engaged, the city of Salem contributing a large proportion of his salary. The critic teacher, acting as his assistant, is still in close touch with the conduct of the school, but she has materially more time for the supervision of the practice teaching of the members of the senior class than formerly. The need of such a change has long been recognized, and it has already increased the efficiency of the school to an appreciable extent.

The Management of the School.

A school for the training of teachers should be self-governing in the largest possible sense. Heretofore the students have been allowed to exercise the largest degree of personal liberty consistent with the rights of others, and this privilege has been enjoyed and appreciated. In order that the students, as a body, may feel a still deeper sense of responsibility for the success of the school, and that there may be a stronger bond of union

between students and teachers, a school council has been formed for the purpose of considering, in an entirely informal way, whatever may affect the welfare of the school. This is a purely representative body of nine members, consisting of the principal, who is chairman *ex officio,* and two other members of the faculty, together with three representatives elected by each class. The council was created by a practically unanimous vote of the school, and its influence for good is already felt.

School Council, Glee Club, Entertainments, etc.

In a school of two hundred students, nearly all of whom return to their homes at the close of each school day, it is necessary to devise means of promoting as eager and united a school spirit as that which results from dormitory life in a boarding school. This need is being met in part by the Saturday lectures and by receptions and other entertainments arranged by the students. The school council is also proving to be a means of developing a sentiment that is helpful alike to students and teachers. Another means of pleasure and profit and a source of helpful influence is a glee club, organized by Mr. Archibald at the beginning of the school year, and conducted by him with his characteristic enthusiasm.

The Course of Study.

An attempt is being made to organize more thoroughly the work of each department, in order that there may be a greater degree of unity throughout the work of both normal and practice schools. Closer relations between the two schools have been established through an increased amount of instruction and supervision in the practice school by the teachers of the normal school. A carefully prepared course in nature study has been introduced into the normal school, and there is systematic instruction in this subject in the practice school throughout the year. This includes the study of plants and animals, physiology and hygiene, and, in the eighth grade, a brief course in the elements of physics and chemistry.

The amount and scope of the industrial work, under the able direction of the teacher of drawing, has been extended, and the industrial laboratory has been thoroughly repaired and is

now occupied. If the necessary appropriation is made, wood-working and other forms of industrial work, under the direction of a special instructor, will be introduced during the school year.

Ground has been broken for a school garden, as another phase of industrial work, and much of the present work in nature study bears more or less direct relation to the gardening to be undertaken in the spring.

Lectures.

The following lectures have been given during the year: —

Relations between Teacher and Supervisor — Mr. Walter Sargent.
Larger Life and Better Service — Supt. William C. Bates.
The New Musical Education — Mr. Carroll Brent Chilton.
Life and Influence of John Brown — Hon. Franklin B. Sanborn.
People I Have Met — Col. Thomas Wentworth Higginson.
Arts and Crafts in the Public Schools — Mr. Henry Turner Bailey.
The Past of Salem — Hon. Robert S. Rantoul.
Anniversary address, Moral Education in the Public Schools — Prof. George H. Palmer.
An interpretative reading, Julius Caesar — Mr. Henry Lawrence Southwick.

These lectures have been held on Saturdays, and to them have been invited the superintendents and teachers of Salem and vicinity, together with others interested in the cause of education. Although the outside attendance has not been large, it has been sufficient to indicate a considerable degree of interest and appreciation.

The Establishment of a Second Kindergarten.

Since the establishment of the practice school in 1897 there has been a constant increase in the membership, until in September of the present year there were enrolled nearly 400 pupils, who occupied the nine available rooms upon the first floor of the normal school building. The custom of admitting to the kindergarten children residing outside the school district and allowing them to remain in the school throughout the course has not only had the effect of crowding the kindergarten, but it has been the means of increasing the membership of the other

classes to an unreasonable size in a school organized for purposes of observation and practice. Accordingly, the local school committee has voted to establish new district limits, and has placed at the disposal of the State a room in the Bertram school, in which a second kindergarten has been opened, under the joint control of the State and the city of Salem. If the schools in the three remaining rooms of this building should ultimately become a part of our system of practice schools, it would be materially to the advantage of our students.

In recognition of an increasing demand for teachers of the first grade who possess some knowledge of kindergarten principles, arrangements have been made for those students who may so elect to devote a portion of the time spent in the practice school to the observation of the work in the kindergarten, but no attempt will be made to train kindergartners.

Improvement of Grounds.

Seed and fertilizer have been applied to the lawn in the front of the building, a considerable number of shade trees have been set out along the line of the street and upon the campus, and ivy has been planted around the walls of the building. This is the beginning of a systematic plan for the permanent improvement of the grounds, suggested by a skilled landscape gardener. The work will be carried forward to completion as fast as funds become available.

Gifts.

The large collection of pictures and casts owned by the school has been increased by the perpetual loan of a valuable cast of the "Laocoön Group," by the Peabody Academy of Science; and the following gifts from the class of 1906: "The Child Handel," Dicksee; "Beethoven in his Study," Schlösser; and a cast, "Cupids," Fiamingo.

Students' Benefit Funds.

At the triennial reunion held in 1904, the nucleus of a fund, later known as the Capen memorial fund, was raised, and this now amounts to $278.89. Last year another fund, of $264, to be known as the Beckwith memorial fund, was contributed by

teachers, students and graduates. It was the original intention that the income from these funds should be used for the assistance of promising and needy students. Inasmuch as the earnings are small, it is proposed that they be used as loan funds, and it is hoped that they may thus be used to the better advantage of students requiring temporary financial aid. Contributions and loans for this purpose are solicited.

Statistics.

1. The whole number of students in attendance for the year ended July 1, 1906, was 192. Of these, 116 came from Essex County, 61 from Middlesex and 15 from Suffolk. The whole number of students attending the school since its opening in September, 1854, was 5,265.

2. The number of new students admitted to the school during the year was 102, of whom 5 were special students. Among these there were 9 who had had experience in teaching, besides several others who had done a few weeks' work each in summer vacation schools. Of the new students, 12 came from Lynn; 12 from Salem; 11 from Cambridge; 9 from Beverly; 8 from Chelsea; 5 each from Everett, Ipswich and Peabody; 4 each from Malden and Somerville; 3 each from Amesbury and North Andover; 2 each from Rockport, Hamilton, Swampscott, Revere, Newburyport and Wakefield; 1 each from Arlington, Danvers, Saugus, Melrose, Gloucester, North Wilmington, Haverhill, Billerica and Lynnfield. The average age of the members of the junior class was 18.7 years.

3. The occupations of the fathers of the new students were as follows: merchants and salesmen, 15; farmers, 5; foremen and superintendents, 7; carpenters, 6; mechanics and manufacturers, 5 each; shoemakers, railroad employees and tailors, 4 each; blacksmiths, 3; clerks, electricians, marble cutters, masons, real estate agents, contractors, unknown, 2 each; laborer, gardener, engineer, bookkeeper, musician, sea captain, watchman, paperhanger, weaver, draughtsman, banker, currier, physician, baker, postman, steward, gauger, hairdresser, editor, collector, sugar boiler, paper ruler, of no occupation, 1 each.

4. The number of graduates June 26, 1906, was 76, and 2 candidates received certificates for the completion of a year's special work. The whole number of graduates of the school has been 2,855, and the number of certificates granted for a year's work has been 44.

ELLA LYMAN CABOT,
JOEL D. MILLER,
Board of Visitors.

STATE NORMAL SCHOOL, WESTFIELD.

CLARENCE A. BRODEUR, Principal.

Instructors in the Normal School.

Clarence A. Brodeur,	Pedagogy, school law, school management.
Lewis B. Allyn,	Mathematics, chemistry, physics.
Edith L. Cummings,	Gymnastics, manual training.
Frederic Goodwin,	Vocal music.
Mrs. Adeline A. Knight,	English, literature, history.
Will S. Monroe,	Psychology, history of education, geography.
George T. Sperry,	Drawing.
Charles B. Wilson,	Natural science.

Training School.

George W. Winslow,	Principal.
Annette M. Fox,	Eighth grade.
Alice M. Winslow,	Eighth grade.
Anna M. Downey,	Seventh grade.
Metta D. Bradstreet,	Seventh grade.
Lucia A. Coleman,	Sixth grade.
Ella J. Downey,	Sixth grade.
E. Abbe Clarke,	Sixth grade.
Frances L. Parsons,	Fifth grade.
Edith M. Robbins,	Fifth grade.
Eliza Converse,	Fourth grade.
Frances L. Foster,	Third grade.
Florence P. Axtelle,	Second grade.
Eunice M. Beebe,	First grade.
Emma L. Hammond,	Kindergarten.

General Conditions.

This school has pursued the even tenor of its way since the last report was written. An enrolment of 171 last year seems likely to be equalled this. The school has been reported as capable of providing for 175 pupils. In the five years, 1896–1901, the membership increased 35; during the last five years there has been a similar increase. The grade of student entering the school does not seem to differ materially from that of previous years. Some of those admitted soon demonstrate their inability to do the work demanded by the rigorous normal school course of study, but most of those entering the institution are ready to undertake its tasks.

There have been several improvements in the permanent equipment of the school. The building has been wired for electricity and fitted with electric lights, except in the basement and a small part of the first floor; new furniture has been provided for the platform in the assembly hall; and, what is of far greater importance, crayon portraits of all the former principals of the school have been procured and hung in the library. Such a collection is of great historical value to so old and so important an institution as this. The portraits will be reproduced in the booklet to be issued in time for the triennial meeting of the alumni association next spring.

Lectures and Concerts.

The following list of concerts and lectures has been given during the past year: —

Mr. O. J. Kern, Rockville, Ill., county superintendent of schools — The Country School.

Miss Mabel Kimball, teacher in State Normal School, Hyannis — Industrial Work in the Grades.

Mr. M. V. O'Shea, Professor of Education in University of Wisconsin — Hidden Forces in Education and Life.

Mr. Henry T. Bailey, Editor "School Arts Book" — Interrelation of the Arts.

Bach-Beethoven Recital — members of the senior class, under the direction of Mr. Frederic Goodwin, State Normal School, Westfield, assisted by Miss Winifred Lynch, violinist, Holyoke, and Miss Lena J. Bartlett, pianist, Westfield.

Mr. Walter Sargent, agent State Board of Education — Public School Drawing.

Dr. James P. Haney, director of the manual arts, New York City — The Teaching of the Manual Arts.

Prof. Edward S. Morse, curator of Japanese pottery, Museum of Fine Arts, Boston — Japanese Arts and Crafts.

Rev. Charles F. Dole, Jamaica Plain — Graduation address.

Rev. Charles Allen Dinsmore, Waterbury, Conn. — The Spiritual Interpretation of the Divine Comedy.

Prof. Edward Howard Griggs, Montclair, N. J. — The Problem of the Divine Comedy.

Mr. George H. Martin, Lynn, secretary of the State Board of Education — Teaching and Teachers for the Times.

Miss Mabel C. Bragg, State Normal School, Lowell — The Art of Story Telling.

Principal Clarence A. Brodeur, Westfield — An Evening with Longfellow, assisted by Mrs. E. H. Shaffer, soprano, Miss E. Abbe Clarke, contralto, Mr. Row W. Steele, tenor, Mr. Frederic Goodwin, bass, Mrs. Frederic Goodwin, accompanist.

Statistics.

1. Number of pupils admitted to the Westfield Normal School since its organization, 4,820. Number graduated since 1855, 1,955. Number graduated in June, 1906, 57 women. Present number of pupils, 161. Number examined for admission in 1906, 79. Number rejected or who did not enter, 11. Number entering in September, 1906, 83.

2. Average age of pupils admitted in 1906, 18 years, 11 months, 5 days.

3. Residences, by towns, of those who entered in September, 1906: Agawam, 2; Amherst, 2; Barre, 1; Belchertown, 1; Blandford, 1; Chester, 3; Chicopee, 7; Claremont, N. H., 1; Easthampton, 8; East Hartford, Conn., 1; Great Barrington, 2; Greenfield, 1; Greenwich, 1; Holyoke, 7; Longmeadow, 1; Ludlow, 3; Northampton, 1; Palmer, 2; Pittsfield, 3; Plainfield, N. J., 2; Southampton, 1; Springfield, 14; Ware, 1; Warren, 4; Washington, 1; Westfield, 7; West Springfield, 2; Wilbraham, 1; Williamsburg, 1; Worthington, 1.

4. Residences, by counties, of those who entered in September, 1906: Berkshire, 6; Franklin, 1; Hampden, 50; Hampshire, 17; Worcester, 5.

5. Occupations of parents: city officials, 3; clerks and salesmen, 4; farmers, 12; laborers, 20; machinists, 8; merchants, 8; contractors, engineers and housekeepers, 2 each; clergyman, engineer, insurance agent, lawyer, mason, painter and plumber, 1 each.

ALBERT E. WINSHIP,
CLINTON Q. RICHMOND,
Board of Visitors.

STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, Principal.

Instructors.

E. Harlow Russell,	Theory and art of teaching reading, psychology of childhood.
Rebecca Jones,	Elementary methods, supervision of apprentices, sewing.
Helen F. Marsh,	Music, drawing.
Arabella H. Tucker (clerk),	History of education, botany, penmanship.
Olive Russell,	Assistant kindergartner.
Anna P. Smith (librarian),	Mathematics, supervision of apprentices.
Amy L. Boyden,	Teacher of primary classes, elementary methods, window gardening.
Henrietta A. Murray,	Gymnastics, school games.
Frank Drew,	Psychology, school hygiene, principles of teaching, nature study.
Horace G. Brown,	English grammar, English literature, history.
Edward L. Sumner,	Choral singing.
Robert S. Baldwin,	Civil government, English.
Lee Russell,	Chemistry, mineralogy, supervision of apprentices.
Robert M. Brown,	Geography, mathematics.
Helen L. Brown,	Head kindergartner.

Principal Russell gives the following statement of the purpose and general condition of the school: —

Upon a superficial view, the academic year just past has not been an eventful one in the history of the Worcester school; but in a deeper sense, no year, perhaps no day, in such a school as this, can go by without important significance to the growing minds of a selected body of young people animated by a high and worthy purpose. Even a casual visitor here is struck with a certain tone of seriousness that pervades the assembled students; an expectant look, an elastic step, an earnest industry, bespeaking interest and faith in what they are doing and gaining. Most of them are on new ground and are facing in a new direction. Hitherto, their chief aim in school has been the acquisition of knowledge; now, it is how knowledge can best be imparted, — a fresh problem, for the most part unthought of before. This mental attitude alone is enough to impart to many almost a new life, and the effect of it can be seen by the dullest eye.

In these days of stir and agitation in educational circles, when discussion and experiment are rife in every quarter, a normal school

acts as a sort of lens to bring each new project or idea into intelligible focus, to comprehend it and estimate its value. The old and the new must be continually brought together and compared. Theory and practice must be placed side by side, and harmony between them worked out. It is this process in its manifold forms that gives to the normal school whatever of professional character it possesses. Graduates of high schools often think of the normal school course as an extension or recapitulation of what they have already learned. The first task of the normal school is to correct this error, and show them the new path they are to follow.

The School.

Apart from the perennial interest just mentioned, the mere external events of the passing days need not be dwelt upon. The numbers have not greatly changed from those reported last year. The entering class is a little larger, and the school as a whole a little smaller. A class, the fifty-first in our history, was graduated in June, with the usual public exercises fully attended and much enjoyed. About 75 per cent. of the class had elected and completed a full three years' course, a year of which had been spent in apprenticeship or practice in actual on-going schools, under the most careful and helpful supervision. Most of the members of this class were engaged to teach in schools of their own before the summer vacation ended.

The Faculty.

The teaching staff of the Worcester school has always been a stable one, and it so continues. The instructors of last year all returned to their former posts at the beginning of the school in September, and the work in all departments was vigorously taken in hand. The instruction and training are modified somewhat in proportion, order and method from year to year, but not enough to call for special mention in this report.

Health.

The medical examiner finds the school as a whole in a very sound physical condition. There has been no epidemic and very little sickness of any kind among teachers or students during the year, and the attendance has been regular and punctual in a gratifying degree.

Acknowledgments.

The principal desires to commend in the warmest terms the cordial relations that have long been voluntarily sustained by the teachers of the city of Worcester towards the students of the normal school who are sent to them weekly for visitation, and who are

assigned to them from term to term for practice as apprentices. Without such generous and helpful coöperation, one of the main features of our training, one not outvalued by any other, could not exist. For thirty years these teachers have stood by our side, contributing freely and without a thought of any form of compensation to the practical schoolroom training which has given to this school a valued and almost unique distinction. In the list should also be included the superintendent of the County Truant School at Oakdale, who in the same spirit has lent us his counsel and aid in many ways.

Grateful mention should here be made of the kindness of the Rev. Charles G. Ames, D.D., of Boston, who in a busy season came to our graduation in June and gave to our large audience a formal address of much power and beauty.

Repairs.

As the years go by there is of course increasing need of general repairs to the buildings and of new furniture to replace that worn out by use, and larger appropriations must be made for this purpose. During the past year, in addition to various minor repairs, the main building has been thoroughly painted on the outside, and the inside needs similar treatment almost as much. The desks and chairs, which have been in constant use for thirty-two years, will soon have to be cast aside and new ones furnished.

To these general statements of Mr. Russell it may be added that the Worcester school has always been managed with careful economy. The buildings are kept in excellent condition, especially when the amounts expended are considered.

Statistics.

1. Number of different students for the year 1905–06, 128.

2. Number admitted in September, 1906, 56. Number admitted since the beginning of the school in 1874, 1,981.

3. Average age of pupils last admitted, 18 years, 9 months.

4. Residences of pupils last admitted: Worcester County, 51; Norfolk County, 1; Connecticut, 2; New Hampshire, New York, 1 each; total, 56.

5. Occupations of pupils' parents: unknown, 7; mechanics, 8; farmers, 6; overseers, 3; clerks, 3; teamsters, 3; manufacturers, 2; brewers, 2; operatives, 2; policemen, 2; managers, 2; insurance agents, 2; real estate dealers, 2; clergyman, foreman, waiter, contractor, collector, butcher, janitor, photographer, tailor, agent, engineer, merchant, 1 each; total, 56.

6. Number in the graduating class, June, 1906, 27. Number of graduates since 1876, 1,171.

7. Average age of the graduating class, June, 1906, 21 years, 3 months.

8. Library: reference books reported last year, 7,180; volumes added the present year, 200; total, 7,380. Text-books reported last year, 8,020; volumes added the present year, 195; total, 8,215. Whole number of volumes in the library, 15,595.

J. D. MILLER,
ELLA LYMAN CABOT,
Board of Visitors.

STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, Principal.

Instructors.

George H. Bartlett,	Lecturer on historic ornament, principles of design in nature, drawing for illustration, process engraving, blackboard illustration.
Albert H. Munsell,	Drawing and painting from the antique figure and living model, composition, artistic anatomy.
Edward W. D. Hamilton, Ernest L. Major,	Drawing and painting from the antique figure and living model, composition.
Joseph R. DeCamp,	Painting from the living model, portraiture.
Anson K. Cross, Richard Andrew,	Free-hand drawing, light and shade, perspective, model drawing theory.
Ethel G. Bartlett,	Free-hand drawing, light and shade.
Mercy A. Bailey,	Water-color painting.
Vesper L. George,	Design.
Laurin H. Martin,	Applied design, laboratory work.
George Jepson,	Descriptive geometry, mechanical drawing and laboratory work.
Cyrus E. Dallin,	Modeling from antique and life, composition.
Annie E. Blake,	Modeling and casting, design in the round.
Ralph E. Sawyer,	Building construction, architectural drawing and design.
Joseph H. Hames,	Sloyd and mechanic arts.
Mary G. Batchelor,	Teaching exercises, graded illustrative work, drawing in relation to other studies.
John L. Frisbie,	Ship draughting.
Anna M. Hathaway,	Curator.

General Conditions.

There has been no marked change in the curriculum of the Normal Art School within the last year. As, however, the number of its pupils is greater than at any previous time, though the standard of examinations is higher, the lack of proper accommodation for so many is painfully evident.

With each twelve months it becomes more apparent that the scope of the school distinctly affects the teaching of drawing in many cities and towns of the State. At the same time, the school always stands ready to adapt its instruction to the advancing needs of the community, as, for example, in its insistence upon more constructive work in the actual making of objects of utility, bearing artistic enrichment.

Use of the Pencil and of Blackboard Drawing.

The emphasis of the school upon drawing as a means of expression second only to speech renders indispensable the acquirement of the mastery of the pencil as the ever-ready tool in drawing. It is or always should be in one's pocket, while color and chalk are mediums for expression which must be sought.

The blackboard drawing, with which the whole school also becomes familiarized as draughtsmen, is a striking feature of the instruction. Though many effects can be well rendered by the use of colored chalks, ready, accurate ability for outline drawing from memory is the essential element of the blackboard exercises of the school.

The pupils of the public school class, all of whom are to become teachers, are most carefully trained by the principal himself in manipulation of the chalk and in time sketches from memory, embracing object and animal drawing, single action or that of a group and perspective, as in sketches of streets, buildings, interiors and graded illustrative work.

The Public School Class and the Boston Public Schools.

The harmonious connection which has existed during the last few years between the State Normal Art School and the Boston public schools, in which are now teaching nearly forty of the graduates of the Art School, has proved conducive to the best interests of the city's schools and of the Normal Art. The State pupils "observe" in the various grades of the public schools, and teach whenever requested to do so by the master of a school or one of his assistants.

Through this arrangement, amicably promoted by both parties to it, the State does not suffer from lack of any practice school in which its pupils should acquire pedagogic skill, manual dexterity and artistic expression. No theoretical class, made up of pupils who, though co-students, endeavor to simulate boys and girls of earlier school grades, but which is taught by one of themselves as a lesson in presentation of methods and subjects, is as valuable an exercise in teaching as when actual children of various ages are taught by the real pupil teacher, who is soon to become the graduated, qualified instructor.

It is earnestly to be hoped that the relationship already established between the public schools of Boston and the Normal Art will strengthen and develop along lines beneficial to both city and State.

The School Paper.

"The Center of Vision," a small monthly magazine, with its corps of school editors, writers and business managers, has done much to foster a loyal school spirit, friendly intercourse between the classes, and continuance of the interest of the alumni in whatever pertains to the school.

The Exposition at Portland, Ore.

A gold medal and a diploma were awarded at the Lewis and Clark Centennial Exposition, Portland, Ore., to the exhibit of the school, which aroused unusual interest because of its constructive character and the excellence of its workmanship in enamel, copper and silver. The correspondence that ensued in regard to the pedagogical methods of the school in relation to drawing was of much service.

Gifts.

From the graduates of the classes of 1906 was received a large carbon photograph of Whistler's portrait of his mother.

Medical Inspection.

Charles S. Butler, M.D., the medical examiner of the school, in addition to his regular inspection of the health of the pupils, has given much attention during the last year or two to their eyesight. His report is of so much value that it is herein appended: —

During the past few years the accommodations in the studios have been taxed almost to their utmost capacity, so that considerations of ventilation, proper light and health have been emphasized. With these facts in mind, improvements of evident benefit were recently made, both in giving more room and in better ventilation to the upper studios.

In my visits the past year I have as usual watched in particular the entering class, because the youth and lack of complete physical development among its members demand more attention. In ac-

cordance with the practice of several years past, I have given the entering class a short talk, early in the school year, on the principles of personal hygiene; and this year supplemented it by another talk on the practical application to teachers and scholars.

The students at the school are encouraged to speak to the doctor during his visits in regard to questions of personal health, — a privilege which has been taken advantage of from time to time. I may say, however, that the general health of the school has seemed to me remarkably good, considering the activities of the students, their ages, and the fact that so many come from far outside Boston.

The necessity of good vision among students in a normal art school needs no emphasis; and during the few years of his service the medical visitor has been consulted occasionally by teachers and pupils in regard to the eyes. The former practice has now been extended, so that this year I have made a systematic test of the vision of all students of the entering class. Of 88 examined, 26 are wearing glasses regularly for reading, studying or for distance; and 10 other students were found with defective vision, sufficient to need correction by glasses; a number of these students, moreover, have already had mild symptoms of eye-strain.

It is proposed to keep these records for future reference and comparison, from year to year.

Very respectfully,

CHARLES S. BUTLER, M.D.

DEC. 1, 1906.

STATISTICS.

The statistics for the school from Sept. 29, 1905, to June 21, 1906, are as follows: —

1. Total number of students, 352, — men, 66; women, 286. Number in attendance at the present time (Dec. 4, 1906), 353.

2. Average age of students, 22 years.

3. Graduates in June, 1906: public school course, 21; course in drawing and painting, 11; course in design, 9; course in mechanical drawing, 2; total, 43, — men, 12; women, 31.

4. Appointments since Dec. 5, 1905, of past pupils to be teachers and supervisors of drawing, which have been reported to date (Dec. 4, 1906), 73.

5. Number of students from the several counties of the State: Barnstable, 2; Berkshire, 3; Bristol, 5; Essex, 47; Franklin, 1; Hampden, 7; Hampshire, 3; Middlesex, 99; Norfolk, 19; Plymouth, 8; Suffolk, 129; Worcester, 17; total, 340. Students from other States are distributed as follows: Maine, 6; New Hampshire, 3; Vermont, 1; New York, 1; Canada, 1; total, 12. Total from other States and Massachusetts, 352.

6. Occupations of fathers of students: professions, 22; real estate and insurance, 5; manufacturers, 16; contractors and builders, 6; merchants and traders, 52; farmers, 7; teachers, 2; mechanics, 25; commercial business, 14; other callings, 120; total, 269. Deceased, 62; retired, 21; complete total, 352.

KATE GANNETT WELLS,
CAROLINE HAZARD,
T. B. FITZPATRICK,
Board of Visitors.

State Normal Schools.

Table showing admissions and attendance for 1906, with other normal school data.

Normal Schools.	Teachers in normal schools.		Teachers in model and practice schools.		Examined in 1906 for admission.	Admitted to—		Number of different students for 1905–1906.			Attendance Dec. 1, 1906.			Number of graduates in 1906.	Different students from the beginning.	Graduates from the beginning.
	Men.	Women.	Men.	Women.		Entering class.	Higher or special classes.	Men.	Women.	Totals.	Men.	Women.	Totals.			
Bridgewater,	7	10	1	12	146	111	13	31	220	251	24	223	247	98	5,626	3,722
Fitchburg,	4	8	3	17	56	48	20	–	138	138	–	141	141	56	641	331
Framingham,	4	12	–	7	98	92	2	–	204	204	–	205	205	85	4,690	2,630
Hyannis,[1]	3	4	1	5	22	18	9	11	40	51	7	44	51	20	341	171
Lowell,	3	7	1	34	134	67	7	–	143	143	1	144	145	51	800	471
North Adams,	4	4	–	21	41	36	5	–	106	106	–	75	75	48	549	283
Salem,	5	10	1	9	99	82	7	5	187	192	6	163	169	76	5,354	2,225
Westfield,	6	2	1	14	86	69	16	–	171	171	–	162	162	55	4,839	1,955
Worcester,	7	5	–	3	72	54	2	4	124	128	4	128	132	27	1,981	1,171
Normal Art (Boston),	14	4	–	–	108	94	6	66	286	352	62	291	353	43	3,655	1,317
Totals,	57	66	8	122	862	671	87	117	1,619	1,736	104	1,576	1,680	559	28,467	14,276

[1] In addition, summer session students: men, 25; women, 141; graduates, 3.

SEVENTIETH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SECRETARY'S REPORT.

To the Board of Education and the Legislature.

I have the honor to submit the seventieth annual report of the secretary upon the condition and needs of the public schools of the State. In accordance with the law, the usual returns have been made by school committees to the office of the Board, and the usual abstract prepared.

Summary of Statistics for 1905–1906.

I. Number of Public Day Schools.

1. Number of towns, 321; cities, 33. Total, 354.
   All have made the annual returns required by law.
2. Number of public schools based on the single class room as the unit of comparison, ... 11,455
   Decrease from the preceding year, . . . 231

II. Average Number of Months the Public Schools have been kept.

1. Average number of months the public schools have been kept during the year, ... $9\frac{7}{20}$
   Average the same as last year.
2. Average number of months the high schools have been kept during the year, ... $9\frac{12}{20}$
   Increase, ... $\frac{2}{20}$

III. School Census Data.

1. Number of persons in the State Sept. 1, 1905, between the ages of seven and fourteen years: males, 186,872; females, 187,440; total, ... 374,312
   Increase in the total, ... 6,436
2. Number of persons in the State Sept. 1, 1905, between the ages of five and fifteen years: males, 259,813; females, 262,500; total, ... 522,313
   Increase in the total, ... 9,157
3. Number of illiterate minors in the State Sept. 1, 1905, over fourteen years of age: males, 3,679; females, 3,212; total, 6,891
   Decrease in the total, ... 1,559

IV. Public School Enrolment and Attendance Data.

1. Number of pupils between seven and fourteen years of age, attending the public schools during the year 1905–1906,	324,368
Increase,	7,376
2. Number of different pupils between five and fifteen years of age attending the public schools during the year 1905–1906,	450,258
Increase,	8,279
3. Number of pupils under five years of age attending the public schools during the year 1905–1906,	11,305
Increase,	335
4. Number of pupils over fifteen years of age attending the public schools during the year 1905–1906,	47,253
Increase,	2,298
5. Total enrolment of pupils of all ages in the public schools during the year 1905-1906,	508,816
Increase,	10,912
6. Average membership of pupils in all the public schools during the year 1905–1906,	451,600
Increase,	9,460
7. Average attendance in all the public schools during the year 1905–1906,	415,508
Increase,	11,391
8. Percentage of attendance based on the average membership,	.92
9. Percentage of attendance based on the total enrolment,	.82

V. Public School Teachers and their Wages.

1. Number of teachers required in the public schools during the year: men, 1,207; women, 12,959; total,	14,166
Increase,	317
2. Number of teachers in the public schools who have graduated from college: in high schools, 1,441; in the elementary schools, 475; total,	1,916
3. Number of teachers who have graduated from normal schools,	6,769
Increase,	184
4. Average wages of male teachers per month in the public schools,	$149 02
Decrease,	$0 03
5. Average wages of female teachers per month in the public schools,	$57 07
Decrease,	$0 15

VI. Public High Schools.

1. Number of public high schools,	263
Increase,	1
2. Number of teachers in the high schools,	1,898
Increase,	78

3. Number of pupils in the high schools, ... 47,543
   Increase, ... 2,144
4. Expenditures for high school support, ... $2,556,173 23
   Decrease, ... $14,494 22

VII. Public Evening Schools.

1. Number of cities and towns having public evening schools, 56
   Decrease, ... 1
2. Number of evening schools, ... 285
3. Number of teachers, ... 1,813
   Increase, ... 24
4. Number of different pupils in attendance: males, 30,362; females, 16,978; total, ... 47,340
   Increase in total, ... 2,202
5. Average attendance, ... 25,541
   Increase, ... 310
6. Expended upon evening schools, ... $315,730 53
   Increase, ... $20,383 64

VIII. Public Kindergartens.

1. Number of towns and cities having public kindergartens, . 39
   Increase, ... 3
2. Number of public kindergartens, ... 279
   Increase, ... 21
3. Number of teachers, ... 496
   Increase, ... 10
4. Number of pupils, ... 16,647
   Increase, ... 896
5. Cost of public kindergartens, ... $290,598 24
   Increase, ... $8,999 43

IX. Cost of the Public Schools for Support.

A. Total expenditure for the *support* of the public schools, $13,585,633 04
   Increase, ... $398,980 55
   This expenditure is distributed among the following classes indicated in the statutory definition of support: —
   1. Teachers' wages, ... $9,877,725 85
      Increase, . . . $299,153 84
   2. Conveyance of pupils, ... $236,415 40
      Increase, . . . $23,194 47
   3. Fuel and care of school premises, . $1,863,339 42
      Increase, . . . $41,829 92
   4. School committees, clerks, truant officers, etc., ... $171,957 47
      Increase, . . . $5,954 59
   5. Superintendents of schools, . . . $349,570 83
      Increase, . . . $6,633 86

6. Text-books and supplies, . . . $706,301 56
Increase, . . . $10,910 38
7. School sundries, ... $380,322 51
Increase, . . . $11,303 49

B. Amount included in the total expenditure for *support* as given under *IX.*, *A*, but derived from other sources than local taxation or its equivalent, such as aid from the State, income from local funds, voluntary contributions, etc., ... $585,235 15
Decrease, ... $6,992 26

C. Amount raised by *local taxation* and expended for the *support* of public schools, being the total expenditure for such support as given under *IX.*, *A*, diminished by contributions for such support from other sources than local taxation as given under *IX.*, *B*, ... $13,000,397 89
Increase, ... $405,972 81

X. Cost of the Public Schools for Buildings.

A. Total expenditure for *buildings* for the public schools, $3,753,610 89
Decrease, ... $1,191,265 63
This expenditure is distributed as follows: —
1. New schoolhouses, ... $2,654,154 05
Decrease, . . . $1,146,988 88
2. Alterations and permanent improvements, ... $690,883 37
Increase, . . . $8,318 60
3. Ordinary repairs, ... $408,573 47
Decrease, . . . $52,595 35

B. Amount included in the total expenditure for *buildings* for the public schools as given under *X.*, *A*, but derived from other sources than local taxation or its equivalent, $11,990 70
Decrease, ... $19,167 40

C. Amount raised by *local taxation* and expended for *buildings*, being the total expenditure for buildings as given under *X.*, *A*, diminished by contributions for buildings from other sources than local taxation as given under *X.*, *B*, $3,741,620 19
Decrease, ... $1,172,098 23

XI. Total Cost of the Public Schools for Support and Buildings.

1. Total expenditure for *support* and *buildings*, for the public schools, that is, for all public school purposes, . $17,339,243 93
Decrease, ... $792,285 08
2. Amount included in the total expenditure for *support* and *buildings* as given under *IX.*, *A*, and *X.*, *A*, but derived from other sources than local taxation or its equivalent, $597,225 85
Decrease, ... $26,159 66

3. Amount raised by *local taxation* and expended for *support* and *buildings*, being the total expenditure for these purposes as given under *IX.*, *A*, and *X.*, *A*, diminished by contributions thereto from other sources than local taxation or its equivalent, as given under *IX.*, *B*, and *X.*, *B*, $16,742,018 08
Decrease, ... $766,125 42

XII. Cost of the Public Schools per Child.

1. Average *taxation* cost of the public schools for *support* (*IX.*, *C*) for each child in the State between the ages of five and fifteen years (*III.*, 2), ... $24 89
Increase, ... $0 36
2. Average *taxation* cost of the public schools for *support* (*IX*, *C*) for each child in the average membership of the public schools (*IV.*, 6), ... $28 79
Increase, ... $0 30
3. Average *taxation* cost of the public schools for *support* and *buildings*, that is, for all school purposes (*XI.*, 3), for each child in the State between the ages of five and fifteen years (*III.*, 2), ... $32 05
Decrease, ... $2 08
4. Average *taxation* cost of the public schools for *support* and *buildings*, that is, for all school purposes (*XI.*, 3), for each child in the average membership of the public schools (*IV.*, 6), ... $37 07
Decrease, ... $2 53
5. Average expenditure on account of the public schools for *support* and *buildings*, including *voluntary contributions* as well as money raised by *taxation* (*XI.*, 1), for each child in the State between five and fifteen years of age (*III*, 2), ... $33 20
Decrease, ... $2 14
6. Average expenditure on account of public schools for *support* and *buildings*, including *voluntary contributions* as well as money raised by *taxation* (*XI.*, 1), for each child in the average membership of the public schools (*IV.*, 6), $38 40
Decrease, ... $2 61

XIII. Percentage of State Valuation expended for Public School Purposes.

1. Percentage of the total State valuation (May 1, 1905) raised by *local taxation* and expended for the *support* of the public schools (*IX.*, *C*), ...003$\frac{89}{1000}$ or $3 89 per $1,000
Increase, ...000$\frac{2}{1000}$ or $0 02 per $1,000
2. Percentage of the total State valuation (May 1, 1905) raised by *local taxation* and expended on the public schools for *support* and *buildings* (*XI.*, 3), ...005$\frac{5}{1000}$ or $5 05 per $1,000
Decrease, ...000$\frac{33}{1000}$ or $0 33 per $1,000

XIV. Academies and Private Schools.

1. Number of incorporated academies,		42
Number the same as last year.		
2. Whole number of pupils in the academies for the year,		5,363
Decrease,	144	
3. Amount of tuition paid in the academies during the year,		$577,040 43
Increase,	$36,579 08	
4. Number of private schools returned,		325
Decrease,	4	
5. Whole number of pupils in the private schools during the year,		91,363
Increase,	2,897	
6. Amount of tuition paid in private schools (much of it estimated),		$871,584 82
Increase,	$10,150 68	

The facts represented by the preceding figures acquire new meaning and serve for encouragement and incentive, if viewed in the light of the condition of public education in Massachusetts when the distinguished secretary Horace Mann presented the first annual report, seventy years ago.

The Schools. — The educational work undertaken at public expense was done in the ungraded district schools of the country towns and the equally ungraded schools of the few cities. Public high schools were required by law to be kept in the larger towns and cities (43 in number), but only 15 had been established.

The ungraded schools varied in size from the little cross-roads schools in the remote districts with a few children, and the schools in the villages containing from 50 to 100 scholars, to the great reading and writing single-roomed schools of Boston, numbering from 250 to 300 pupils.

The country schools contained children of all ages, from four to twenty-one. They studied the usual elementary branches, and a few of the older pupils ventured into the higher mathematics and some of the elementary sciences. In the larger towns, people who could afford it, and many who could not, sent their children to private schools and academies.

The School Year. — The average school year was 6 months and 25 days, divided about equally into a summer and a winter term. More than a third of the scholars went only during one

of these terms; that is, on an average between 3 and 4 months each year. There was no law compelling attendance. The attendance for even these short terms was irregular, — 80 per cent. in winter and 76 per cent. in summer. At a somewhat later period the report was made from one town that one third of all the pupils were truants.

Schoolhouses. — The total value of all the schoolhouses was estimated at about $500,000. Shortly afterwards four schoolhouses in one town were sold at auction for an average of $41.34 each, and in another town four were sold for $100. Many were sold for from $4 to $10 each. They were described by Mr. Mann as inconvenient, uncomfortable, dangerous to health, unsightly and repulsive, "deserted by all public care and abandoned to cheerlessness and dilapidation." One school was kept for thirteen years in a room allowing less than 30 feet of air for each pupil; now the minimum requirement is 215 feet.

Teachers. — Women taught the summer schools, and men the winter schools. There were no trained teachers, and few who could be called professional teachers. For the most part, teaching was a casual employment. The men were selected for their ability to control turbulent spirits by force of muscle or will; the women were selected on account of family relationships or sectarian church connections. The men were paid an average of $25.44 a month; the women, $11.38 a month. These sums included board.

Discipline and Instruction. — Both the spirit and the teaching in the schools were marked by wide differences. The prevailing discipline was harsh, and most of the instruction poor. There were good teachers, both men and women; but they changed their schools so often that most schools were subjected to alternatives of good and poor teaching, or to a succession of poor teachers, varied by an occasional good one.

Text-books. — The parents purchased books for their children. Although the law authorized the school committee to select text-books and required them to provide books for poor children free of expense, in 100 towns no uniform books had been prescribed and in 40 towns no provision had been made for the poor children. The children came with books of differ-

ent kinds, with books worn and mutilated, or with no books at all.

Supervision. — Although the law required the school committee to visit the schools, in not more than 50 or 60 towns was there any pretense of visiting. In four fifths of the towns no money was spent for supervision. In a town of 40 districts the committee had not examined a teacher or visited a school for eight successive years. Writing on this point, Mr. Mann said: "The teachers have not one-thousandth part the supervision which watches the same number of persons having the care of cattle or spindles or the retail of shop goods."

Expenditures. — The towns on an average raised $2.81 for each child between four and sixteen years of age. Twenty-nine of the richest towns raised but $2.21 per child. These were the towns in which the most money was spent for private schools. The entire amount raised by taxation was $465,228, while $328,026 was spent on private schools. The amount raised by taxation was less than one and six tenths mills on each dollar of valuation.

Public Apathy. — The low condition of public education was due to the general lack of interest and sympathy among the people. Most of the people were contented with the poor district schools; those who were not, patronized private schools. To awaken the people of the State was the work to which Mr. Mann devoted himself. He appealed to their interest and to their conscience. The awakening began at once, and almost immediately showed itself in improved conditions. The full extent of the work which has been done in seventy years may be estimated from a few comparisons.

Contrasts.

The Schools. — The school district system, with its blighting influences, has disappeared. The schools have been graded wherever pupils enough are found to form classes. Specialization has taken the place of the old heterogeneous collection of pupils. Kindergartens take the youngest children.

The 15 high schools have become 263 in 236 cities and towns, while in those schools are taught 1,030 children from other towns whose tuition is paid wholly or in part by the

State. Only 13 towns have no pupils receiving high school instruction.

Evening schools provide for both minors and adults who have passed the school age and are at work.

The School Year. — In place of the short summer and winter terms is a school year averaging 9 months and 7 days. Compulsory attendance laws secure the average attendance of 81 per cent. of all enrolled pupils, and the enrolment far exceeds the number between the compulsory ages. Truant schools have been provided for those who habitually absent themselves.

Schoolhouses. — The miserable buildings, valued at $500,000, have disappeared, and in their place are schoolhouses valued at $58,894,058. In these modern science has provided for the health and comfort of the children in heating, lighting, ventilation, seating and sanitary conveniences.

Teachers. — Teaching has become a steady business for all, and a profession for many. Women have largely taken the place of men. Normal schools have been established, and have given two years or more of training to 48 per cent. of all the teachers now in the schools. These teachers control by personal influence, and for the most part without corporal punishment. The pay of teachers has risen from $25.44 a month for men and $11.38 a month for women to $149.02 a month for men and $57.07 a month for women.

Text-books. — The poor are no longer discriminated against by being left without school books, or by receiving them as charity. Text-books, and with them all needed material for school work, are furnished to all the pupils at public expense. These books are uniform throughout the schools of each town and city, but not throughout the State.

Supervision. — Professional supervision has been added to professional teaching. Every town and city employs, either alone or in a union with other towns, a superintendent of schools, who, under the direction and control of the school committee, has the superintendence and care of all the public schools. In State-aided unions these superintendents hold a certificate of approval issued by the Board of Education.

Expenditures. — The total expenditures for school purposes have risen from $465,228 to $16,742,018.08. The expendi-

ture for private schools has risen from $328,026 to $1,448,-625.25. The average amount raised by taxation for each child of school age has risen from $2.81 to $24.89, the lowest being $3.23 and the highest being $60.11. The amount raised by taxation has risen from one and six tenths mills on the dollar of valuation to three and eighty-seven hundredths mills.

Public Interest. — Public apathy has given place to public interest, which alone could account for the enormous increase in expenditures. Public education in all of its phases is a subject of universal discussion in newspapers, magazines and books, and on the platforms of clubs and associations.

It would be extravagant to claim for the Board of Education the full credit for all of these changes. The Board, through its secretaries, has projected many of these reforms; it has supported them all, and assisted in making them effective. Its success has been due to the co-operation of public-spirited men and women, who have given freely of their own time and thought and means to build up a public school system worthy of Massachusetts.

Some Existing Imperfections.

While the general conditions as described in the preceding pages seem encouraging, and might suggest that the State would be warranted in resting self-satisfied with its attainments, a closer view of the schools shows that there are still weak places. Ideal conditions have not been reached in the most favored communities, and there are some dark spots on the map of the State where whole communities are still backward and apathetic.

School Attendance. — A thorough-going system of securing school attendance of all the children is the exception rather than the rule. The basis of such a system must be an accurate school census, as required by law. There is reason to believe that much looseness exists in the manner of taking this census, especially in the rural towns. Cases are known to exist where a member of the school committee, acting as enumerator, starts with the school registers as a basis, and depends on the children to furnish additional names.

With an accurate census as a basis, in every town and city

it is the duty of the school committee, acting through the superintendent, to locate every child between the ages of seven and sixteen. The list as given by the census should be compared with the school registers, and the children who are not in the public schools noted. If they are not in the public schools, it is the business of the school authorities to know why they are absent. The school laws provide for exemptions on account of attendance upon an approved private school, equivalent instruction elsewhere, physical infirmity or mental incapacity. A careful and complete record should be made, preferably by card catalogue, of the results of such investigation. This is the second step, the census being the first.

If it should appear that there are children who are not in school and who are not exempt under any of the legal provisions, the next duty of the school authorities is to take the necessary steps to enforce the law relative to non-attendance, — against the parents if they are responsible, or against the children if they are habitual absentees or truants. This is the third step.

There is a laxity and inefficiency in each of the processes in many communities. The census is not complete; the investigation based on it is not thorough; the enforcement of law is neglected, for various reasons.

Incompetent persons are appointed as truant officers. Committees and truant officers hesitate to prosecute, for fear of retaliation; for fear lest political or business interests should suffer; for fear of offending employers of children.

Some complications arise in connection with the conveyance of children to school. While disputes are going on between dissatisfied parents and the school committees, some children are kept from school. In several cases, where attempts have been made to enforce the law, the judges have refused to convict.

The school authorities need to scrutinize their own records carefully, in order to explain the large discrepancy between the enrolment and the average membership as reported to the Board of Education. For the year covered by the statistics in this volume this discrepancy amounts to 57,216. In some cities it amounts to 18 per cent. of the enrolment.

Supervision. — Nantucket and Gosnold are the only two towns which continue to disregard the law requiring the employment of a school superintendent. The Board of Education has pointed out to the school authorities of Nantucket how they might comply with the law without great expense and to the advantage of all the schools, but no steps have yet been taken.

It would be self-deception for the State to think that, because all the towns are employing professional superintendents, the problem of supervision has been solved. The position of school superintendent is an anomalous one. The State first authorized the towns, then tempted them by offer of State aid, then required them to employ a superintendent; but it has never defined his duties or conferred on him any authority.

The duties of the school committee are unchanged, save that they are not required to visit the schools. The school committee must still determine the number of schools, and how the children shall be distributed among them; select and contract with teachers; purchase text-books and supplies; make general rules and regulations for the conduct of the schools; and make the required returns and reports to the State.

The superintendent is to have the "supervision and care of the schools, under the direction and control of the committee." The law implies that the superintendent's chief work is in the schools. He is to be there to inspect, to advise, to assist. It is his business to know the schools, — to know what they are doing and what they are not doing. This knowledge qualifies him to be the expert adviser of the committee in the discharge of their legal functions. The schools cannot be efficient in any community unless this relation exists. It does not now exist in all towns. There are committees which either do not seek advice from the superintendent, or persistently ignore it when given. In some cases the trouble is due to some man on the committee who had been accustomed to manage the schools before the day of superintendents, and who is unwilling to relinquish his domination. In others it is due to some young man who, being newly elected on the committee, feels that he must do something. The superintendency cannot accomplish all that it is designed to do until the committees come into relations of

confidence with the superintendent, recognize the nature and purpose of his work, give him freedom to work out his plans and the means for doing it, and support him before the teachers and the public.

Teaching. — The teaching is not all good; much of it is excellent. It conforms more closely to sound principles than in earlier years. It aims to secure attention by awakening interest, and it utilizes every means of illustration which the ingenuity of teachers can devise. The effort is to draw children to learning, rather than to drive them to it. It is on the whole much more objective and concrete. Text-books occupy relatively a much less important position. Observation and comparison and judgment are relied on more than verbal memory.

In the famous Boston examination of 1845, to the question in geography, why some of the rivers in the southern part of the Atlantic States flowed eastward and others westward, few pupils ventured an answer. The most intelligent reply was, "Because it was the will of God." Few children could be found now in the grammar schools of the State who could not intelligently answer similar questions.

Most schools are supplied with apparatus for illustration, maps, globes and sand tables for geography; counters and weights and measures for arithmetic; cabinets for nature study and for illustrations in reading; laboratories for the sciences in the high schools.

There is a wider range in reading. Not only a variety of reading books, but books in science, history, biography and literature are abundant in nearly all of the schools. In the use of this, oral reading as an accomplishment has suffered. It has mostly disappeared from the schools, as it has from the homes. Good reading of the old-fashioned kind can rarely be found.

There is much practice in written English, and facility is acquired much earlier than formerly; but so large a part of the children come from homes in which English is not familiarly or not correctly spoken, that the work of teaching both spoken and written English is much more difficult than when the population was more homogeneous.

Much complaint is made that the so-called essentials are

neglected, especially spelling and arithmetic. The deficiencies in both of these subjects are greatly exaggerated. Defects in spelling are more in evidence than formerly, because everybody writes, whereas in the olden days few people wrote. Many people imagine a golden age somewhere in the past when everybody habitually spelled correctly. If we attempt to fix the date of the golden age in spelling, we find it pushed back farther than most people who now complain can remember.

In 1856 William B. Towle wrote, in "The American Journal of Education:" "Probably spelling was never worse than at present."

In the same year Gideon Thayer wrote, in "Letters to a Young Teacher:" "What proportion of those who have enjoyed the average means of education among us do or can spell their vernacular tongue? Take the first fifty persons you meet of either sex, and ask of them an off-hand page of manuscript. If more than one in the whole number accomplishes it without a single error in orthography, you will be more fortunate than most of our fraternity have found themselves, and I venture to assert the result will not be more successful than this proportion."

In 1839 Horace Mann said: "It is generally admitted that the spelling is not as good as it was a generation ago."

This pushes back the era of good spelling to the early part of the nineteenth century.

I have a package of letters in my desk, written about 1820 by an early graduate of Bradford Academy, who was a teacher for several years, in which the rhetoric is superior, but which contain many misspelled words.

The truth is, many of the old records are well spelled because those who could write and spell were chosen as clerks.

So far as any means of proof exist, the work in the arithmetic of the schools of to-day is superior to that of the past. Recently the records of an arithmetic test given in the schools of Springfield, Mass., in 1845, have been discovered. The same test was given last year to pupils of corresponding age in the schools of Springfield, with results much superior to those of the earlier date. The published results have attracted wide attention, and the same test has been applied in the schools

of different cities in our country. So far as the results have been published, they go to prove that in grasp of conditions and in accuracy of ciphering the pupils of to-day show better teaching than those of 1845.

Teachers. — There is still a considerable number of teachers who have had no professional preparation for their work, but very few who have not had such education as the high schools furnish. Most teachers are selected because of their fitness to teach, as proved by experience or probably because of education and training. Whenever the choice is left to the local superintendent, he chooses the best he can get, or the one who he thinks is the best. His judgment may be at fault, but he means to do right. Where the local committee retain the power of selection, it is usually because they want to employ residents of the town, and they fear the superintendent will go outside. It is in these towns that the weakest teachers are found.

Massachusetts is about the only State that does not require a State certificate as a consideration of ability to teach. Some people believe that such a requirement would improve the teaching force of this State. Several things need to be considered in connection with such a proposition: —

First, that Massachusetts is the only State in which high school opportunities are offered and enjoyed by the young people of every town, so that no persons are likely to be employed without the culture which a high school affords.

Second, that in no other State are all the teachers under close professional supervision, by means of which the weaker teachers are subjected to constant oversight, are urged to effort by constant friendly stimulation, and may receive help at any time from an expert.

These facts should be taken into consideration in any discussion of the question of State examinations and State certificates.

There are other elements in the question. It is well known that the number of properly qualified teachers is not equal to the demand, — that is, teachers for the schools of the larger cities. The work in these schools is growing more difficult. The classes are very large, and the difficulties of control and

of securing attention through interest seem to be increasing. The supervision is growing more exacting, and the systematizing process makes large demands upon the time and strength of teachers in the elaboration of records. It must be confessed that teaching in a city graded school as a business presents less attractions than do other forms of business to those who are thinking chiefly of salary, and less attractions than do other forms of philanthropy to those who have a missionary spirit. Whether State examinations and certificates would make this work more attractive and create a large supply of suitable teachers, is one of the questions to be asked.

Turning to the rural schools, where now are most of the teachers without professional training, the wage question is to be considered. There are in the State 207 towns where the average annual income for teaching is less than $400; 32 towns where the income is less than $300. How high a standard of professional qualifications does $300 pay for, or $400? How much culture and character and personality does the same amount of money pay for in domestic service or in stores and factories? These questions also are to be considered in discussing examinations and certificates. Should the standards set fit the salaries, or would higher standards tend to raise salaries? Certainly now in city and country schools alike the salaries are out of proportion to the demands.

How far the present tendency in the large cities to increase the demands upon teachers and to subject them to supervision which is in the nature of surveillance, and to substitute for personal and friendly stimulation and help the mechanical pressure of examinations, — how far this tendency is responsible for the disinclination of scholarly men and women to take up public school teaching, especially grade teaching, is a matter worth considering.

The Old View Point.

A close study of the growth of the school system to its present proportions shows that the change has consisted in expansion and specialization, and not in the discovery of any new principle or the selection of any new view point.

The schools are larger and more numerous, because there are

more children to be schooled. They are more expensive, because there is more money to spend. There are more subjects in the curriculum, and each subject is exhaustively amplified, because children can go to school more years and more months in the year.

The purpose in it all is the same, namely, the diffusion of learning. It has come down from the Renaissance. It covered England with endowed grammar schools before the Puritan emigration. It came over in the ships with the first settlers. It founded Harvard College and the early Latin schools, and inspired the earliest school legislation of 1647. It appeared with renewed vigor in the great school law of 1789, and it has pervaded all school legislation since.

Education has been deemed to consist in imparting and acquiring a body of knowledge. The acquisition of knowledge has been deemed to have some occult virtue, by means of which a child — any child, every child — might grow into usefulness as a member of the community. In the process of acquiring knowledge and in proportion to the knowledge acquired, the power latent in the child develops into maturity. Children being supposed to be in the main alike, the same body of knowledge must be efficacious for all. Only given time enough and skill enough in imparting, and all the children would come out of the schools educated, — *fit for life,* as the phrase has been. The axiom has been, "More time, more knowledge; more knowledge, more power."

With this ideal always before them, — every child schooled in all the learning of the time, — the people have gone steadily on multiplying school facilities, extending the school age and the school year and compelling school attendance. And, because the view point has always been the same, the courses of study are everywhere substantially alike.

The trouble with this traditional view point was that it disclosed only partial truth. The range of vision which it afforded was too narrow, and some things were seen distorted. It failed to show the part which experience plays in education, in discovering power and developing it. In other words, it failed to show the influence of living in fitting for life.

The men and women who lived during the two or three

generations preceding the expansion of the last seventy years were wholly unconscious of the part they were themselves playing in the education of their own children. They gave all the schooling they could afford to give, and wished it were more. But more and better than schooling was the example of their own piety, and industry, and frugality, and business enterprise, and patient endurance, and patriotic devotion. And far broader and more effective in developing power than the little schooling of the past or the much schooling of the present was the life in the open which all the children lived, and their share in the common productive industry of the family. Throughout all this early period the children were in closest touch with the social, industrial, commercial, political, military and religious life of the time. All the avenues of the mind were open, and experiences of all sorts were crowding each other for entrance. Knowledge so gained was power.

Some Modern View Points.

Because the results of the increasing schooling have not been wholly satisfactory, some people have been forced to the conclusion that the old view point is no longer tenable. They think they have discovered that the education of a child is a more difficult process than had been supposed, more complex and many-sided; and, as a result of much serious thinking by a good many people, several new view points have been suggested.

The Child as a View Point. — Refusing to look at education as the imparting of a uniform body of knowledge to a body of uniform children, larger or smaller, by uniform methods in a uniform time, people are looking at children, and, seeing that they are not alike, are studying how to modify the system of education to make it more flexible and more adaptive. The physical condition of the child in school is demanding and receiving more thought than ever before as a modifying influence upon school work. Wherever physical inspection of school children has been undertaken, it has disclosed a prevalence of impaired vitality of bodily organs and functions sufficient to cause failure in much of the school work. Defective vision and hearing are common. Adenoid growths disturb the normal

bodily and mental activities of large numbers of school children. Defective teeth affect the nerves and impair the digestion of many. Skin diseases of various kinds annoy and irritate, and cases of a more serious nature — spinal curvature and tuberculosis — are sufficiently numerous to justify the most scrupulous care in examination and diagnosis.

Of the children examined by school physicians in New York City, large numbers have been found defective. Similar disclosures have been made by examinations in the schools of London and the continental cities. In all the large cities, also, numbers of children are found suffering from insufficient food or from food which fails to nourish. The schools everywhere contain the victims of poverty, intemperance and other social vices, crowded and unsanitary houses and parental ignorance and neglect.

Differences in mental capacity are as marked as differences in physical conditions, and are beginning to receive attention.

Various attempts have been made to bring the children and the prescribed course of study into closer harmony. Recognizing in a general way a broad division of children into the quick and the slow, or the brighter and the dull, the time limits of the course of study have been modified to fit these two classes. While the distance to be travelled and the route have remained the same, two trains have been run, — one "express," and the other "accommodation," with more frequent stops. In some cases more than two trains have been run. Another device has been to keep the time the same for all, but to furnish assistance for the slower pupils, putting on two engines instead of one.

In the use of all these devices the course of study has been considered sacred, and the effort has been to fit the children to the course. The view point is really the old one.

A further step is taken in some schools by segregating the children of low mental capacity and forming a class of so-called backward children, and allowing them to take so much and such parts of the course of study as may be found practicable. The widest departure from the traditional policy is made in a few cities, where children who cannot be developed under the ordinary school conditions and by the ordinary

school methods are placed by themselves in groups of not more than 12 or 15, under a specially trained teacher, who deals with them as individuals, and uses such means, manual or mental, as she finds best adapted to their peculiar needs. There is already evidence that such work should be much more general than is now the case. It is to be hoped that the newly established medical inspection in this State will discover the children who need this special treatment, and that they will not be allowed to continue in the regular classes, a hindrance to others and gaining no benefit themselves.

The law of 1905, prohibiting the employment of illiterate minors between fourteen and sixteen years of age, has brought to light several cases of children who have been in school regularly until they have reached the age of fourteen, and through a peculiarity of mental endowment have been unable to learn to read and write, while their power of imitation is well developed, and they can do some form of mechanical work well enough to be wholly or partially self-supporting.

From the new view point mental aptitudes are deemed worthy of attention in organizing a scheme of education. This underlies the so-called "elective courses."

A most significant phrase has been introduced into educational discussion, — "self-realization." It has in it the view that corresponding to every child there is another possible child which he may and should become; that every child is different from every other child; that his individuality is sacred: and that every facility should be afforded him to become his own new self, preserving his individuality through all the processes of growth. There is in this thought, too, the view that only along this way is there a possibility of attaining excellence, and that the world needs men and women who excel.

While a beginning has been made in the recognition of the individual needs of children and in some modification of school work to meet those needs, much remains to be done. So far as the children now in the schools are concerned, many of these differences have been discovered too late to be treated most successfully. Children have gone on year after year suffering from physical defects or from low mental capacity; time and strength of children and teachers have been wasted in trying to

accomplish the impossible, — fighting against nature; and the mental aptitudes of children have received little attention, while they have been forcing themselves to conform to requirements for which they have no inherent fitness. No business could prosper which took so little account of the material upon which it worked, and which carried on its problems regardless of differences.

Much prejudice and more inertia remain to be overcome before all the children will have a fair chance in a school system which professedly offers equal opportunities for all.

Environment as a View Point. — The conviction has forced itself upon thoughtful people everywhere that the conditions of modern city life interfere seriously with the healthy natural development of children, — so seriously as to make their education a matter of peculiar concern. The effect of overcrowding, of unsanitary conditions, of parental ignorance, to lower the vitality of the children, even where they do not engender actual physical and mental disease, has been referred to. It is the purpose of the medical inspection in the schools to discover these effects, and to devise means to overcome them.

But city conditions affect child life in a more subtle yet more profound and lasting way. This is especially true of boys. There is a familiar phrase used to explain the unconventional ways of boys, and to excuse their violations of social propriety or their infraction of law. To say that "Boys will be boys," cannot end discussion, — it only provokes to further inquiry. We may go further, and say, "Boys must be boys," if they are to grow in a healthy and natural way to be men. That which makes a boy a boy is an instinct to measure himself against external forces. It is the human instinct of self-protection, of self-preservation and race perpetuation. It is a primitive instinct. This is what being a boy means, and it is by being a boy that he becomes a man, — strong, active, fearless. He learns to handle himself and to measure his own powers. This is a part of his own education, and an essential part, more fundamental than the learning acquired in school.

With this normal process of development city conditions interfere. City ordinances are made on purpose to restrain him, and as he learns to evade them the net about him is woven more

and more closely. He is perpetually running up against law, until he comes to consider the officers of the law as his natural enemies, — as indeed they are, though not through any fault of their own. The effects of this restraint are manifold. Physically he is less sturdy than he ought to be, mentally he is less balanced, and morally he acquires distorted ideas of right and wrong, — seeing that to steal and to throw snowballs in the street subject him to the same treatment.

There is a growing conviction that the scheme of public education must in some way be broadened to include provision for the healthy physical development both of boys and girls. This would require playgrounds and gymnasiums, large and small, and adequate supervision and instruction. Some provision is now made at public expense, and private efforts are multiplying; but there can be no doubt that this necessity of growing boys and girls is a matter of public concern and of legitimate public support, — not as a charity, not as a fad or fancy, but as an imperative obligation.

On another side the conditions of modern city life are unfavorable. They offer few opportunities for that participation in simple and varied forms of industrial activity on which children thrive, and which is also an essential part of a complete education.

When the first report of the Board of Education was written, these natural means of education for mind and body were in full activity. Because they were so familiar, so fully a part of the every-day life, their educational value was overlooked. Because education through schools was scanty, its relative value was overestimated, and all the efforts for social improvement were directed to increasing and improving the schooling. When the time comes to write the seventieth report, the conditions have become reversed. We have schooling in abundance, and nothing else. Hence the necessity for a new view point.

An analysis of the earlier forms of home education may serve to show what they contributed, and may direct our thinking in planning for the present and the future.

The children became familiar with the regular processes of household life, — the care of the house, the preparation of food, the care of the children, the care of clothing. The girls,

and in many cases the boys, learned to sweep, dust, wash, iron, make and tend fires, cook, sew, mend, and to wash and dress the younger children. In more primitive times they learned to spin, weave and dye, to make butter and cheese, to cure meats and fish. Outside the house they learned the care of horses, cattle, pigs and poultry; the propagation and care of plants; tillage, planting and harvesting. They learned to do much construction and repair work on buildings and tools. They learned to do all these things by actual helping in the doing, according to their age and strength, beginning by merely running and carrying, and gradually taking on more responsibility.

In all this they learned the orderly processes of a great variety of industries. They learned the qualities and uses of materials and the use of tools. They saw the necessity of continuous industry, and, because money was scarce, they learned to practice those small economies which are the basis of frugality and thrift. They gained certain mental power with it all. They learned to see straight and quickly. They learned to see differences, and to compare. They learned to fit means to ends, and became ingenious and inventive. Judgment and common sense were developed. More important than all, they were forced to take a serious view of life, and to feel their obligation of service. There was a social element in it all that gave it its chief value. The children worked as members of the family in a co-operative way. They learned that where many worked together every little helped, and that only by mutual help could results be attained.

With such an equipment, it is easy to see how they might get on in life with scanty schooling, for they had all the essentials. Add reading, writing and ciphering, and the education was complete. Only the squire, the minister and the doctor needed more.

The problem now pressing for solution is, how to secure these essentials under modern city conditions. It cannot be done all at once; probably it cannot all be done.

All of this work was formerly done at home. To do it effectively now will require the interested and active co-operation of the home with the school. This is the first step to be taken. Through parents' meetings and parents' associations

and home visitation the parents may be brought to co-operate so far as to agree to teach their children the ordinary household duties, and to require their performance. The school should also teach these in a practical way. Cooking and sewing should be taught in all city schools, and taught with the ordinary household needs in view. With this should go instruction in other household duties.

If the care of the schoolhouse were entrusted to the pupils, they would learn valuable lessons, and the buildings would be better cared for. There is no part of the care of a modern school building which is beyond boys and girls of grammar school age, except perhaps the care of the boilers, for which an engineer is required; but the older boys could learn much from the engineer. They might learn to do small repairs, to mend a broken window or broken furniture and apparatus, or to pack a leaking faucet.

There is one school building in the State where a room has been fitted up in the basement for a class of backward pupils. As an experiment, the care of the room was given to them, and they were offered a small sum of money as pay for service. They eagerly accepted the offer, chose committees week by week to do the work, and used the class money to buy ornaments for the room. It is the best-kept room in the building, and the children have been stimulated to better work in their studies.

Through the co-operation of the home much has been learned by school children in the care and use of back yards. This has come about partly through the school garden work. The school garden is another wholly feasible means for the training of city children, and it has in it much educative value, if rightly conducted.

By a modification and extension of the manual training work, some of the old-time advantages may be gained. It needs to be connected in the thought of the pupils more closely with the needs of every-day life. The things made need to have an obvious use and a money value, and some of them should be the combined work of several pupils or of a whole class. They should be for home or school or class use.

All of this work, to be well done, would call for considerable modifications of existing practices.

First of all would be needed a simplification of existing courses of study. With such simplification would come spare time for the new work. It would probably be possible, in a forenoon session of four hours, say from 8.30 to 12.30, to do all of the academic work needed, and in the afternoon to do shop and garden work and drawing of a substantial and useful kind. Some of the morning work would be reinforced by the afternoon work. This would be especially true of the language work and the arithmetic.

These modifications may seem revolutionary, but they are not as revolutionary as the change by which the existing system has been built up. The effect would be to retain what of the present work is most useful, and to recover some of the former elements which have been lost. The process of recovery is likely to resemble the process by which the present system has become general, — in being gradual, tentative and local, and spreading through the united efforts of enlightened men and women.

A fuller treatment of the subject of environment is given in the paper contained in the Appendix to this report, entitled "What a City owes to its Boys."

Vocation as a View Point. — The justification which has been offered for devoting the first eighteen years of a child's life entirely to scholastic pursuits, ignoring wholly any specific future, has been that by the study of the subjects in the school curriculum general mental power might be acquired which could be turned to use in any specific calling. It has been claimed that this general power included potentially all specific powers, and was therefore of more value than any one specific power. This is the familiar doctrine of mental discipline on which the prevailing school courses rest.

The result of basing school work on this theory has been that pupils have been going through the elementary and high schools without specific preparation for any vocation, and late in life must begin at the beginning of whatever calling they enter.

This result was so unsatisfying that a demand arose for special training for the commercial pursuits of bookkeeping, typewriting and stenography. This was at first supplied by private enterprises in so-called commercial colleges. More recently technical vocational courses have been introduced into

most high schools. The demand is now that this work shall be extended so that provision may be made for other vocations. How to satisfy this demand without sacrificing the general cultural value of the old courses is the problem now before the State. Its solution seems to lie along the following lines: —

First, a modification of the elementary teaching, so that it shall lay a foundation for vocational life. For example, the arithmetic should find its motive in a desire to solve problems, dealing with actual life in the home, in the shop and on the farm, as well as in the store and counting-room. A part of the drawing should find its motive in the same problems, as should also the writing and the composition. That is, a problem in arithmetic should be more than an exercise in ciphering on imaginary conditions, — it should have in it vocational feeling, and not be merely a disciplinary exercise; it should be a walk to get somewhere, not merely a "constitutional."

Recently I have seen a problem proposed to and worked out by a rural school in a neighborhood whose chief industry is box making. The work to be done was in answer to a letter in the following form, prepared by the superintendent: —

Boston, Mass., Jan. 1, 1906.

Dear Sir: — Please give me the price, delivered in Boston, on 50,000 packing cases for sample tin sent, two dozen in case: ends $\frac{5}{8}$ inch, sides $\frac{5}{16}$ inch, Massachusetts white pine.

Very truly yours,

The children were to get the information as to cost of lumber, nails, carting, etc., by writing letters to persons in town; they were to work out the drawings, calculate the cost of making the boxes and reply to the letter. Careful directions were given by the superintendent as to the order of steps and as to the drawings to be made. The work involved arithmetic, drawing, construction and letter writing, and was well done by eighth-grade pupils.

Such work is wholly practicable in many schools, and might profitably replace much of the book work in arithmetic now prevalent.

Much work in reading, language, drawing, arithmetic and geography, and some in history, could easily be made to asso-

ciate itself with the local industries, with which the children are more or less familiar and into which many of them will enter on leaving school. Beyond this, various forms of constructive manual work are valuable as elements of the constructive industries which will form the vocations of many of the pupils. Elementary agriculture should be included in the work of the rural schools. If properly correlated, this would not take from the other studies, but would make them all more fruitful because making them less abstract.

The high school work may be modified to meet vocational ends without lessening its cultural value. The classical course is now vocational, in that it leads directly to college, in preparation for the professions of law, medicine and divinity. It is the most substantial course, and carries with it the most social prestige. It is regarded as peculiarly a scholar's course. Many high schools do, and all should, offer a course less classical and more scientific, leading through the normal schools to the vocation of teaching. There is no reason why any one of the following courses might not be made equally substantial, scholarly, dignified and honorable: —

1. A business or commercial course, including commercial arithmetic and geography and commercial law; economics; the French, German or Spanish language; bookkeeping, typewriting and stenography; and the principles of secretarial work.

2. A mechanic arts course, including algebra, geometry, trigonometry and surveying; physics and chemistry, including photography; the French or German language; mechanical drawing; and shop work in wood and metal.

3. An arts and crafts course (for girls), including geometry, drawing and design; the French or German language; botany; and work in wood, metal, leather and clay.

4. A domestic science course (for girls), including chemistry; biology; drawing and design; physiology and hygiene; household sanitation and household economics; and sewing and cooking.

5. A music course, including the French, German and Italian languages; theory of music; piano-forte practice; vocal or instrumental practice. English and history should be included in all these courses.

6. In rural high schools a course in agriculture should be offered, including mathematics; physics and chemistry; botany, zoölogy and economics; with garden or farm practice, and leading to the agricultural college.

Should it not be found practicable to offer several of these courses in one school, it would seem feasible to offer different courses in neighboring high schools, and meet the needs of several towns by exchange of pupils.

All the studies now relied on for general culture would find a place in the new courses. They would cease to be unrelated and abstract, leading nowhere in particular, but would instead acquire sequential and practical relations, and might be expected to acquire new interest because opening a path to a specific calling.

Trade Schools.

The report of the Commission on Industrial and Technical Education in 1905 showed clearly that many people throughout the State are looking at education from this new vocational view point, and are hoping that existing means of education may be supplemented by schools for teaching the principles of specific trades.

The law of 1872, authorizing school committees to establish industrial schools, opened a way which the municipalities have not yet chosen to travel, but which must be entered upon if the State is to meet its obligations to its youth under modern conditions.

Where the industries of a community are diversified, a school could be organized, taking children at fourteen years of age and giving them a course of study which should include the fundamental elements of all mechanical industries. Two years spent in such a school would take the place of the two years now spent by thousands of boys and girls in unskilled occupations, — two years which the commission declared and showed by conclusive statistics to be "practically waste years."

In towns in which a single industry predominates, a school could be maintained in which such preparatory work could be done as would enable a boy or girl on leaving school to enter the industry with advanced standing and higher pay.

In a town whose chief industry is furniture-making, for ex-

ample, such a course could be carried on in connection with the high school. It should include drawing and design, embracing historic periods in furniture, shop work in cabinet making, the study of such materials as woods and upholstery and decorative stuffs, with such parts of the cultural and business courses as would constitute a complete and well-rounded course. Students in neighboring towns would find in such a course the education which would doubtless prove attractive. The interests of employers and employed would both be served, and the results would justify the new departure.

The same is true of the towns where the manufacture of jewelry employs so large a proportion of the people as to promise great usefulness in a special course in the high school. There is every reason to believe that, should such courses once be established anywhere, an impetus would be given to vocational training which would place the State far in advance of its present position as a producer of fine goods, while it would not suffer as a home and nursery for intellectual culture.

Independent Industrial Schools.

The foregoing suggestions apply especially to the public schools as they now exist, — elementary and secondary. The Commission on Technical and Industrial Education, appointed by Governor Douglas in 1905, in its report to the Legislature in 1906 recommended the establishment by law of a new commission to promote the establishment of industrial and technical schools separately from the existing schools and under the direction and control of the commission. It was the intention of the first commission that the existing schools should remain under the control of the local school committees and the oversight of the Board of Education, so that the two systems should be distinct but co-operative. In accordance with this recommendation the following act was passed in 1906: —

Acts of 1906, Chapter 505.

An Act to establish the commission on industrial education.

Section 1. The governor, by and with the consent of the council, shall appoint a commission of five persons, to be known as the Commission on Industrial Education, to serve for the term of three years, and to receive such compensation as the governor and

council shall approve. The said commission on its organization shall appoint a secretary to be its executive officer, who shall not be a member of the commission, and who shall receive such salary as shall be approved by the governor and council, and the commission may employ supervisors, experts in industrial and technical education, and such clerical and other service as may be found necessary. The necessary expenses of the commission, including clerk hire, travelling expenses, stationery and all other incidental expenses, shall be paid out of the treasury of the Commonwealth, as may be provided by law, but shall not exceed the sum of eight thousand dollars for the remainder of the present fiscal year.

Section 2. The commission on industrial education shall be charged with the duty of extending the investigation of methods of industrial training and of local needs, and it shall advise and aid in the introduction of industrial education in the independent schools, as hereinafter provided; and it shall provide for lectures on the importance of industrial education and kindred subjects, and visit and report upon all special schools in which such education is carried on. It may initiate and superintend the establishment and maintenance of industrial schools for boys and girls in various centres of the Commonwealth, with the co-operation and consent of the municipality involved or the municipalities constituent of any district to be formed by the union of towns and cities as hereinafter provided. The commission shall have all necessary powers in the conduct and maintenance of industrial schools, and money appropriated by the state and municipality for their maintenance shall be expended under its direction.

Section 3. All cities and towns may provide independent industrial schools for instruction in the principles of agriculture and the domestic and mechanic arts, but attendance upon such schools of children under fourteen years of age shall not take the place of attendance upon public schools as required by law. In addition to these industrial schools, cities and towns may provide for evening courses for persons already employed in trades, and they may also provide, in the industrial schools and evening schools herein authorized, for the instruction in part-time classes of children between the ages of fourteen and eighteen years who may be employed during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on together: *provided,* that the independent schools authorized in this section shall be approved as to location, courses and methods of instruction by the commission on industrial education.

Section 4. Two or more cities or towns may unite as a district for the maintenance of the industrial schools provided for in the preceding section, but no such district shall be created without the approval of the commission on industrial education.

Section 5. Whenever any city or town or any district, as provided in the preceding section, shall appropriate money for the establishment and equipment and maintenance of independent schools for industrial training, the Commonwealth, in order to aid in the maintenance of such schools, shall pay annually from the treasury to such cities, towns, or districts a sum proportionate to the amount raised by local taxation and expended for the support of schools for each thousand dollars of valuation, as follows: cities and towns expending more than five dollars for each thousand of valuation for the support of public schools to be reimbursed by the Commonwealth to the amount of one half, those raising and expending between four and five dollars per thousand to the amount of one third, and those raising and expending less than four dollars per thousand to the amount of one fifth, of the cost of maintaining industrial schools: *provided,* that no payment to any city or town shall be made except by special appropriation by the legislature.

Section 6. The commission on industrial education shall make a report annually to the legislature relative to the condition and progress of industrial education during the year, stating what industrial schools have been established and the appropriations necessary for their maintenance, in accordance with the preceding section, and making such recommendations as the commission on industrial education may deem advisable; and especially shall the commission consider and report at an early day upon the advisability of establishing one or more technical schools or industrial colleges, providing for a three or four years' course for extended training in the working principles of the larger industries of the Commonwealth.

Section 7. The trustees of the Massachusetts Agricultural College are hereby authorized to establish a normal department for the purpose of giving instruction in the elements of agriculture to persons desiring to teach such elements in the public schools, as provided in sections three and four: *provided,* that the cost of such department shall not exceed the sum of five thousand dollars in any one year, and that at least fifteen candidates present themselves for such instruction.

Section 8. Section ten of chapter forty-two of the Revised Laws, and all acts and parts of acts inconsistent with this act, are hereby repealed. [*Approved June 21, 1906.*

Wages of Teachers.

That the compensation of public school teachers is small compared with the earnings of persons engaged in other occupations, and that the rate of increase in recent years has not

kept pace with the increase in the cost of living, are facts that are attracting public attention throughout the country.

Several important reports on the subject have been published. In 1905 a committee of the National Educational Association published an elaborate report on "Salaries, Tenure and Pensions of Public School Teachers in the United States." In 1904 the results of a most thorough investigation of the subject in Indiana was presented to the Indiana State Teachers' Association in the form of a "Report of a Committee on Taxation and Teachers' Salaries." This report was published in 1905. In October, 1906, a report was presented to the Middlesex County Teachers' Association by a committee appointed in 1905 to investigate the conditions with respect to salaries of teachers in Middlesex County. This report is so illuminating as to existing conditions in Massachusetts that the main facts and conclusions are presented here, through the courtesy of the committee: —

Teachers' Salaries in Middlesex County.

The investigation sought to determine: —

First. — Whether or not during the last ten years the prevailing tendency in the salaries of the grade teachers in the county has been upward.

Second. — Whether or not during the same period the necessary living expenses of teachers in the county have advanced.

Third. — Whether or not, if the living expenses of teachers have advanced, salaries have advanced correspondingly.

Data bearing upon these points have been secured from 22 communities in all, including the 11 cities of the county and a corresponding number of typical towns.

The following facts were determined by the inquiry: —

	Per Cent.
Average increase in salary maxima for the 11 cities during the last ten years,	9.6
Average increase in cost of living for teachers for the 11 cities during the last ten years,	19.6
Average increase in salary maxima for the 11 towns during the last ten years,	12.3
Average increase in cost of living for teachers for the 11 towns during the last ten years,	18.9
Average increase in salary maxima for the 22 communities during the last ten years,	10.8
Average increase in cost of living for teachers for the 22 communities during the last ten years,	19.3

On these facts the committee comments as follows: —

It appears to be established, from the foregoing data: (1) that the prevailing tendency in respect to the salaries of grade teachers during the past ten years in the county has been upward; (2) that the same is true with respect to the living expenses of teachers; and (3) that the rate of advance in salaries has not kept pace with the increase in cost of living.

In studying the figures given in the foregoing table, it should be borne in mind that, as a rule, the maximum salaries are not reached until a teacher has served in the city for a period covering from three to six years; and that consequently many teachers, perhaps the majority, are not now receiving the salaries here indicated. In one city at least the maximum can be received only after the teacher has pursued a course of professional study approved by the superintendent of schools, and has thoroughly demonstrated her superior skill as a teacher. It would be misleading, therefore, to assume that all teachers in the communities mentioned are actually receiving salaries as high as the indicated maxima.

In view of the fact that the average cost of living for teachers in the communities studied has increased 19.3 per cent. during the last ten years, while the increase in salaries has been only 10.8 per cent., the inadequacy of the present compensation of teachers becomes painfully apparent.

The committee offers certain considerations pertinent to the subject: —

1. The Relation of the Teacher's Salary to the Requirements of Her Position.

To compare the pay of teachers with the remuneration in other fields of labor hardly affords a satisfactory basis for judgment on this question; nevertheless, for the benefit of those who are interested in such comparison, it may be said that useful data may be found in the nineteenth annual report of the Commissioner of Labor in the United States, in which it is shown, by statistics from 48 cities in different parts of the country, that, if 50 weeks be assumed as the basis of a year's work, the earnings of unskilled laborers on streets and sewers in all except Chicago, Ill., Columbus, Ga., Meridian, Miss., and Washington, D. C., exceeded the minimum yearly salary of grade teachers in those cities.

In spite of the difficulties in the way of securing reliable data for comparison upon this point, your committee believes that the prevailing salaries of grade teachers to-day are not commensurate with the requirements made upon them in the way of professional equipment and standards of living.

The better class of positions at the present time, at least in the area covered by this report, are open only to those who have had

reasonably broad academic preparation, supplemented by a full course in the normal school and some successful experience in teaching. Not only are the higher standards that are justly being set by school officials in these respects compelling the would-be teachers to a larger expenditure of time and money than formerly was required in preparation, but also they are compelling those who now are in the ranks to take up special courses of study in order to be eligible for advancement.

Again, the advancement in the social standards of living in general during recent years, as the natural result of the great prosperity in the business world, has operated to put upon teachers the necessity for greater expenditure in the way of dress and social requirements. This comes about because, necessarily, from the social sphere in which teachers are expected to move and in which they should move, they must be governed in their expenditures to a greater or less extent by the example of those whose incomes in a great many cases are not only more generous, but also respond more quickly to more prosperous business conditions.

2. The Relation of Salaries to the Character of the Teaching Corps.

The importance of a high standard of personality and professional efficiency in the public school teaching corps is so well understood that it needs no discussion.

In this connection, however, it should be noted that, owing to the increasing opportunities for women to earn in other lines of effort as much if not more with less expenditure of energy than they can in teaching, there is grave danger that ultimately the character of the teaching force in our schools will suffer unless a higher standard of salaries can be secured for teachers.

Low salaries for teachers, if maintained in face of general prosperity in the business world, mean certain inevitable results: —

First. — Although school boards may require complete professional training on the part of those whom they employ, the character of those who take up the work of teaching will gradually deteriorate, because many of the brightest and strongest personalities will prefer other fields of labor in which the remuneration is greater. Already complaint is being made quite generally that it is becoming increasingly more difficult to secure the type of teacher wanted for the average salary paid.

Second. — Low salaries mean shorter periods of service by first-class teachers.

Third. — A prevailing low rate of wage means less ambition on the part of the teachers and less opportunity for professional growth while in service, — a fact that operates distinctly against the best results in our schools.

A reasonably high standard of salaries, therefore, is even more important to the public than it is to teachers themselves.

3. Difficulties in the Way of Higher Salaries.

It is the opinion of your committee that one of the chief obstacles to adequate financial compensation for teachers lies in the lack of appreciation on the part of the public: (*a*) that the most vital interests at stake in a community are those involved in public education; (*b*) that the best results in this field can be secured only by employing first-class teachers, and making their tenure as permanent as possible; and (*c*) that first-class teaching talent and permanency of service on the part of the teachers cannot be secured unless reasonably high salaries are paid.

If these conclusions be sound, it would appear that school officials can hardly do a greater service for the cause of public education than to labor systematically to educate the people along these lines, until they shall come to believe that it is neither wise economy, nor is it morally right so far as the interests of the child are concerned, to maintain a rate of wages for teachers that is less than will enable the best results to be secured in the schools.

The present burden of taxation in our municipalities is unquestionably heavy, and naturally the people are slow to assume added burdens in this line; but the public places a high valuation upon its public schools, and when it is made clear to the people that the teachers in those schools are *really underpaid,* there is little doubt that the money can be secured to meet the demands for higher salaries.

Campaigns of education along this line are the primary need; but the application of anything that savors of the trade-unionism idea, in an endeavor to force adequate compensation for teachers, as is advocated in some quarters, is thoroughly unwise, because such action is calculated in the long run to alienate the naturally sympathetic disposition of the public towards teachers as a class.

Another obstacle to more rapid advance in salaries of teachers is found in the inferior teacher herself, who too frequently is unwilling to see her fellow-worker receive an increase in salary unless she too is similarly increased.

Nothing is clearer than that teachers differ widely in their efficiency and in their professional spirit. Because boards of education recognize this fact, there is a natural feeling that they are not able to pay teachers universally as high a salary as would be possible in the case of those whose work is especially meritorious.

Your committee believes that it would tend to increase the possibility of a higher average wage for teachers if some form of merit recognition should be incorporated into the arrangement of

salary schedules for teachers; because, on the one hand, such a plan would make it easier for first-class teachers to secure adequate compensation; and, on the other hand, it would tend to spur inferior teachers to extra professional efforts in order to render themselves eligible for an advance in pay.

Wages in Massachusetts.

While the wages of teachers have risen throughout the State, the increase has been very unequal, as shown in the following table. It should be borne in mind that the Massachusetts statistics include teachers in high schools as well as those in the grades. A considerable part of the average increase reported is due to the large increase in the number of high school teachers.

Average increase in the monthly wages of female teachers from 1895 to 1905, arranged by counties: —

Barnstable,	$5 04	Hampshire,	$6 69
Berkshire,	10 38	Middlesex,	5 80
Bristol,	10 84	Nantucket,	4 03
Dukes,	10 80	Norfolk,	7 24
Essex,	3 83	Plymouth,	10 34
Franklin,	7 84	Suffolk,	1 12 [1]
Hampden,	5 75	Worcester,	7 24

Percentage of increase in the monthly wages of female teachers from 1895 to 1905, arranged by counties: —

Barnstable,	13.4	Hampshire,	19.
Berkshire,	28.	Middlesex,	10.5
Bristol,	23.	Nantucket,	12.4
Dukes,	32.	Norfolk,	14.6
Essex,	.078	Plymouth,	25.4
Franklin,	24.	Suffolk,	.015 [2]
Hampden,	11.8	Worcester,	16.

The increased amount of State aid afforded by the distribution of the whole instead of one half of the income of the school fund accounts for a considerable part of the increase in Berkshire, Dukes and Franklin counties. As the chief end in view in increasing the State aid was to enable the poorer towns to obtain better teachers, and the only effective means of doing this is by paying higher wages, towns which have not

[1] Decrease. (Boston decrease $1.42.)

[2] Decrease.

ERRATA.

On page 107, lines 15 and 19, for " increase " read " income."

used their school fund money for this purpose are defeating the end of the beneficent legislation of 1903, and ought not to receive further aid.

In the general discussion of the subject of teachers' wages, the question has arisen whether the State should by law fix a minimum wage. Several States have already done this. In Ohio, in 1906, an act was passed making $40 a month a minimum wage. Were such a minimum fixed by law in Massachusetts, it would affect 121 towns, in which the wages range from $27 to $39.

But any comparison of monthly wages is deceptive, unless the number of months which the schools keep is also taken into account.

In Ohio the minimum school year is 32 weeks, the same as in Massachusetts. This makes a minimum annual increase of $320.

Were the length of the minimum school year to remain the same in Massachusetts, and a minimum wage of $40 to be fixed, it would affect 64 towns, in which the annual increase is now less than $320. There are 57 towns which are paying less than $40 a month, in which the school year is sufficiently in excess of 32 weeks to bring the annual income of the teachers above $320. Massachusetts ought not to be satisfied with a minimum wage of less than $40 and a minimum year of less than 32 weeks.

Whether a compulsory law is the best way to secure this higher standard in Massachusetts may be questioned. To a larger extent than in most other States Massachusetts has depended upon an enlightened public sentiment to bring about desirable results in the conduct of school affairs. In the towns now paying the lowest salaries there is a willingness but not the ability to pay more. These towns are now depending largely upon State aid. Should their financial burden be increased by legislation as to salaries, other necessary expenditures would be cut down, or the State would need to increase its aid.

The regulation of wages by law has not in recent times been considered to be in accordance with sound principles of economics, and there is grave doubt whether it would not occasion evils greater than it cures. So long as in the absence of State

examination and certification any person can teach school in Massachusetts who can secure the votes of a majority of a local school committee, a compulsory wage law would not necessarily secure better teachers, — it would only make the spoils to be contended for more attractive.

Registration of Teachers.

The same practical difficulties in the way of bringing together those seeking employment and those who desire to employ exist in the case of teachers as in other forms of labor.

The private agencies which have undertaken to do this work have increased in number and in competing energy. They have served a necessary purpose, and in the main have fully justified their existence. But the burden upon the teachers has been in many cases a heavy one, especially since the cost of living has left so small a margin between their income and their necessary expenses.

The establishment of an employment bureau by the Board of Education has often been discussed, but the Board has never had the means to develop the business as the private agencies have developed it. The Legislature has finally taken the initial step by the passage of the following act: —

Acts of 1906, Chapter 399.

An Act relative to the employment of public school teachers through the state board of education.

Section 1. Any person desiring to teach in the public schools of this Commonwealth may, on payment of a fee of two dollars, file with the state board of education an application in writing stating the kind and grade of the school desired and the experience and training of the applicant, and may file with such application any evidence of the applicant's character and qualifications.

Section 2. It shall be the duty of the board to receive such applications, to make lists of the same arranged for convenient reference, and on request of superintendents of schools and school committees of cities and towns to furnish all reasonable information about such applicants. The board may make reasonable rules and regulations relating to the filing of applications and the giving of information as above provided.

Section 3. This act shall take effect upon its passage. [*Approved May 21, 1906.*

Under the provisions of this act the Board has opened a registry. It was not to be expected that the work would develop rapidly. Both teachers and superintendents, having been accustomed to depend upon private bureaus, would naturally hesitate before trusting their interests to an untried agency. Since the work has been undertaken by the Board, 27 persons have applied for registration as teachers. Applications for teachers have been received from a few superintendents, and names have been furnished.

The registration fee of two dollars, which is imperative under the terms of the law, appears to serve no useful purpose. There seems no good reason why the registration of teachers should not be as free as that of other persons in the newly established State employment offices. I recommend that the law be amended by striking out the registration fee.

Should the business develop, it will be necessary in time to increase the office force of the Board of Education, which is already heavily taxed by other recent enactments.

Tenure of Office of Teachers.

It appears from the returns of 1905–06 that the following 82 cities and towns, containing 5,535 teachers, have availed themselves of the provisions of the law of 1886, and have elected their teachers to serve during the pleasure of the committee, — that is, they have given up the annual election: —

Acton,
Agawam,
Ashland,
Ayer,
Belmont,
Berkley,
Beverly,
Blackstone,
Boston,
Bridgewater,
Brookfield,
Chatham,
Chelsea,
Chesterfield,
Clarksburg,
Concord,
Dracut,
Duxbury,
East Bridgewater,
Egremont,
Fall River,
Foxborough,
Gay Head,
Gosnold,
Grafton,
Hampden,
Hancock,
Harwich,
Hinsdale,
Holyoke,
Hopedale,
Hopkinton,
Hudson,
Lanesborough,
Lexington,
Lowell,
Marion,
Mashpee,
Medford,
Melrose,
Middlefield,
Middleton,
Nahant,
New Bedford,
New Braintree,
Newton,
Northbridge,
Norwell,

Norwood,
Orleans,
Paxton,
Plainville,
Plymouth,
Prescott,
Quincy,
Raynham,
Revere,
Richmond,
Royalston,
Savoy,
Stockbridge,
Stow,
Sturbridge,
Swampscott,
Swansea,
Tewksbury,
Tyngsborough,
Tyringham,
Waltham,
Wareham,
Wendell,
Wenham,
Wellesley,
West Bridgewater,
West Brookfield,
Westford,
Westhampton,
Wilbraham,
Williamsburg,
Woburn,
Worthington,
Wrentham.

Twenty-four of the above towns were not in the list last year. Seventeen that were in the list last year are not in the list this year, 11 of these apparently having returned to the annual election. Twenty-seven towns gave no answer to the question.

Medical Inspection in the Public Schools.

In the history of education in Massachusetts most measures of reform have been obliged to overcome long-continued opposition, and have only become embodied in the law after repeated trial and defeat. To this customary experience the movement to secure the physical inspection of all school children has proved a gratifying exception. The bill requiring the appointment of school physicians in each town and city, and making annual examinations of all the children compulsory, passed the Legislature with little opposition, having behind it a powerful public sentiment and strong professional support. The bill is as follows: —

Acts of 1906, Chapter 502.

An Act relative to the appointment of school physicians.

Section 1. The school committee of every city and town in the Commonwealth shall appoint one or more school physicians, shall assign one to each public school within its city or town, and shall provide them with all proper facilities for the performance of their duties as prescribed in this act: *provided, however,* that in cities wherein the board of health is already maintaining or shall hereafter maintain substantially such medical inspection as this act requires, the board of health shall appoint and assign the school physician.

Section 2. Every school physician shall make a prompt examination and diagnosis of all children referred to him as hereinafter provided, and such further examination of teachers, janitors and school buildings as in his opinion the protection of the health of the pupils may require.

Section 3. The school committee shall cause to be referred to a school physician for examination and diagnosis every child returning to school without a certificate from the board of health after absence on account of illness or from unknown cause; and every child in the schools under its jurisdiction who shows signs of being in ill health or of suffering from infectious or contagious disease, unless he is at once excluded from school by the teacher; except that in the case of schools in remote and isolated situations the school committee may make such other arrangements as may best carry out the purposes of this act.

Section 4. The school committee shall cause notice of the disease or defects, if any, from which any child is found to be suffering to be sent to his parent or guardian. Whenever a child shows symptoms of smallpox, scarlet fever, measles, chickenpox, tuberculosis, diphtheria or influenza, tonsilitis, whooping cough, mumps, scabies or trachoma, he shall be sent home immediately, or as soon as safe and proper conveyance can be found, and the board of health shall at once be notified.

Section 5. The school committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results. The tests of sight and hearing shall be made by teachers. The committee shall cause notice of any defect or disability requiring treatment to be sent to the parent or guardian of the child, and shall require a physical record of each child to be kept in such form as the state board of education shall prescribe.

Section 6. The state board of health shall prescribe the directions for tests of sight and hearing and the state board of education shall, after consultation with the state board of health, prescribe and furnish to school committees suitable rules of instruction, test-cards, blanks, record books and other useful appliances for carrying out the purposes of this act, and shall provide for pupils in the normal schools instruction and practice in the best methods of testing the sight and hearing of children. The state board of education may expend during the year nineteen hundred and six a sum

not greater than fifteen hundred dollars, and annually thereafter a sum not greater than five hundred dollars for the purpose of supplying the material required by this act.

Section 7. The expense which a city or town may incur by virtue of the authority herein vested in the school committee or board of health, as the case may be, shall not exceed the amount appropriated for that purpose in cities by the city council and in towns by a town meeting. The appropriation shall precede any expenditure or any indebtedness which may be incurred under this act, and the sum appropriated shall be deemed a sufficient appropriation in the municipality where it is made. Such appropriation need not specify to what section of the act it shall apply, and may be voted as a total appropriation to be applied in carrying out the purposes of the act.

Section 8. This act shall take effect on the first day of September in the year nineteen hundred and six. [*Approved June 20, 1906.*

It will be seen that the bill aims to accomplish two purposes which are quite distinct. First, it utilizes the services of the school physicians to discover incipient cases of infectious disease, and by removal from school prevent the disease from becoming epidemic. This is in the interest of the public health, and is an extension of the work which has been done by local boards of health. The second purpose of the law, much more fundamental in its character and likely to be more far-reaching in its influence, is expressed in the phrase in section five: —

to ascertain whether he is suffering from defective sight or hearing or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results.

Wherever there is any considerable number of newly arrived immigrants, and the congestion of population has brought unsanitary personal and home and neighborhood conditions, there are found in the schools considerable numbers of children suffering from some of the many ailments by which childhood is rendered unhappy and proper development hindered. Among these ailments found by visiting physicians are the following (I quote from a letter from one of the school physicians of Boston): —

ERRATUM.

On page 113, 9th line from bottom, for "expenditures" read "examinations."

1. Skin conditions causing annoying symptoms, like itching or soreness, or such unsightliness as to make them avoided by other pupils. Favus, ringworm of scalp, eczema, severe chapping of face or hands, severe impetigo, abscesses or boils, — all of these I have noticed, and they are real though temporary disabilities.

2. Physical deformities, as bow legs and other bowing of leg due to early rickets, seem mostly in foreigners, and so severe at times as to be real defects and disabilities requiring severe surgical procedures.

3. Adenoids and large tonsils, when severe, are marked disabilities. The nasty chronic nasal discharge, hoarse voice and poor mental condition are frequently seen in these adenoid conditions.

4. Mental defects, from simple dulness to idiocy.

5. Disabilities which prevent a child getting the most out of school life may be due to home conditions, as late hours, unsuitable food, or work which fatigues the child beyond the recuperating stage.

The law requires that parents be notified of any defects which require the services of a physician. The weakest part of the system for ameliorating the physical disabilities of the children lies at this point. The law does not compel the parent to seek the medical advice which the case demands. The whole process may be and in many cases is arrested at this point.

In the absence of law, some closer affiliation between the school and the home needs to be established. In most cases this must be the work of the teachers. If the establishment of such a co-operative relation should become general, it would be the most beneficial effect of the law. Before it can become general, however, three ameliorations of teaching conditions must be made: the classes must be smaller; the courses of study must be simplified; and the machinery of school-keeping, in the form of expenditures and records, must be reduced.

The time may come when those standards of judgment now being set up as to the efficiency of teachers and on which promotion is based shall include the teacher's success in establishing mutually helpful relations with the homes. Meantime, in the large cities the school nurse is being employed as an intermediary between the school and the home. In New York the organization of the health department of school administration includes the school nurse as its most efficient instrument. In

Boston four nurses are employed by private associations in districts where newly arrived immigrants are most numerous.

From a report of one of the nurses the following facts are gathered, which show the scope of the work.

The district contains about 2,500 children. The nurse visits each building at least once a day. There she obtains from the teacher a list of cases needing her consideration, — cases which have been examined by the school physician. The nurse has a place in which to work, and is supplied with basins, hot water, soap, wash cloths, towels, comb, manicure set, prescriptions for petroleum, and printed instructions for its use in pediculosis. As the children come to her, she examines their heads and hair carefully, their nails and teeth. She talks with them about the care of the teeth, the use of a tooth-brush and of a handkerchief, proper food, preparation for bed and care of the bedroom, and personal cleanliness. She dresses minor wounds and bruises. As a result of this work, the nurse reports a marked improvement in the appearance of the children, especially of the newly arrived foreign children. They are beginning to take pride in their appearance, and often stop the nurse on the street to look at their hands and nails.

Much home work is done. The parents are visited, friendly relations are established, and instruction is given as to the proper care of the children. These visits give an opportunity to learn of home conditions, to put the parents in the way of receiving care from district physicians, and sometimes to inform the Board of Health of unsanitary conditions.

The nurse also works in connection with the out-patient department of the hospitals in cases where the parents cannot afford a private physician. She sees that medicines are procured and proper treatment given, and that the children return to the hospital to be seen by the physicians. In this way much time is saved the schools; the hospitals and the homes are brought into close connection; the children are quickly treated, properly followed up, and returned to their school work without unnecessary delay.

This nurse reports that from January to October, 1906, she examined 2,000 individual cases, some of the children being examined several times. In October she examined 517 cases

of pediculosis. She made 1,050 home visits, and, in October, 89 hospital visits.

Another nurse, in a district containing 1,275 pupils, reports, for a period from December, 1905, to November, 1906: —

Number of cases seen, some several times,	791
Visits to homes,	1,944
Number taken to dispensary,	546
Cases of pediculosis treated or caused to be treated,	1,178

As a result of medical inspection in the district: —

Number of glasses fitted,	102
Adenoid operations,	36
Number of ear cases,	23
Cases of crooked legs operated on and straightened,	2

These reports go far to explain the statements by the school physicians and the teachers, — that the school nurse is a much-needed supplement to the physician, and that it is the common belief that, if either were to be dispensed with, the doctor could better be spared than the nurse.

The following materials have been sent to all cities and towns in sufficient numbers to meet all the requirements of the law: —

COMMONWEALTH OF MASSACHUSETTS.

Acts of 1906, Chapter 502.

Directions for Testing Sight and Hearing.

[Prepared by the State Board of Health.]

[Note. — When not in use, the chart of test letters should be placed in the envelope in which it is sent, to keep it from becoming soiled and illegible. When it is damaged, a requisition should be made on the State Board of Education for a new set.]

To test the Eyesight.

Hang the Snellen test letters in a good clear light (side light preferred), on a level with the head. Place the child 20 feet from the letters, one eye being covered with a card held firmly against the nose, without pressing on the covered eye, and have him read aloud, from left to right, the smallest letters he can see on the card. Make a record of the result. Children who have not learned their letters, obviously, cannot be given this eyesight test until after they have learned them.

To record the Acuteness of Eyesight. — There is a number over each line of the test letters, which shows the distance in feet at which these letters should be read by a normal eye. From top to

bottom, the lines on the card are numbered respectively, 50, 40, 30 and 20. At a distance of 20 feet the average normal eye should read the letters on the 20-foot line; and if this is done correctly, or with a mistake of one or two letters, the vision may be noted as $^{20}/_{20}$, or normal. In this fraction the numerator is the distance in feet at which the letters are read, and the denominator is the number over the smallest line of letters read. If the smallest letters which can be read are on the 30-foot line, the vision will be noted as $^{20}/_{30}$; if the letters on the 40-foot line are the smallest that can be read, the record will be $^{20}/_{40}$; if the letters on the 50-foot line are the smallest that can be read, the record will be $^{20}/_{50}$.

If the child cannot see the largest letters, the 50-foot line, have him approach slowly until a distance is found where they can be seen. If 5 feet is the greatest distance at which they can be read, the record will be $^{5}/_{50}$ ($^{1}/_{10}$ of normal).

Test the second eye, the first being covered with the card, and note the result, as before. With the second eye, have the child read the letters from right to left, to avoid memorizing. To prevent reading from memory, a hole 1½ inches square may be cut in a piece of cardboard, which may be held against the test letters, so as to show only one letter at a time, and may be moved about so as to show the letters in irregular order. A mistake of two letters on the 20 or the 30 foot lines, and of one letter on the 40 or 50 foot lines, may be allowed.

Whenever it is found that the child has less than normal sight, $^{20}/_{20}$, in either eye, that the eyes or eyelids are habitually red and inflamed, or that there is a complaint of pain in the eyes or head after reading, the teacher will send a notice to the parent or guardian of the child. as required by law, that the child's eyes need medical attention.

Method of testing Hearing.

If it is possible, one person should make the examinations for an entire school, in order to insure an even method. The person selected should be one possessed of normal hearing, and preferably one who is acquainted with all of the children, the announcement of an examination often tending to inspire fear.

The examinations should be conducted in a room not less than 25 or 30 feet long, and situated in as quiet a place as possible. The floor should be marked off with parallel lines one foot apart. The child should sit in a revolving chair on the first space.

The examination should be made with the whispered or spoken voice; the child should repeat what he hears, and the distances at which words can be heard distinctly should be noted.

The examiner should attempt to form standards by testing persons of normal hearing at normal distances. In a still room the

standard whisper can be heard easily at 25 feet; the whisper of a low voice can be heard from 35 to 45 feet; and of a loud voice from 45 to 60 feet.

The two ears should be tested separately.

The test words should consist of numbers, 1 to 100, and short sentences. It is best that but one pupil at a time be allowed in the room, to avoid imitation.

For the purpose of acquiring more definite information concerning the acuteness of hearing, one may have recourse to the 512 v. s. (vibrations per second) tuning fork and the Politzer acoumeter.

For very young children, a fair idea of the hearing may be obtained by picking out the backward or inattentive pupils and those that seem to watch the teacher's lips, placing them with their backs to the examiner, and asking them to perform some unusual movement of the hand, or other act.

COMMONWEALTH OF MASSACHUSETTS.

ACTS OF 1906, CHAPTER 502.

Record of Sight and Hearing Tests.

190___.

Town or City_____School_____Class_____

NAME. [If notice is sent to parent or guardian, star name.]	EXAMINATION OF EYES.		HEARING.		Remarks.
	EYESIGHT.		WHISPER HEARD (DISTANCE IN FEET).		
	Right Eye.	Left Eye.	Right Ear.	Left Ear.	

COMMONWEALTH OF MASSACHUSETTS.

ACTS OF 1906, CHAPTER 502.

Report of Sight and Hearing Tests to Superintendent of Schools.

Town or City } _____School,_____

_____190

Number of pupils enrolled in the school_____

" found defective in eyesight_____

" found defective in hearing_____

" of parents or guardians notified_____

_____

Teacher or Principal.



Commonwealth of Massachusetts.

NOTICE TO PARENT OR GUARDIAN.

In accordance with chapter 502 of the Acts of 1906 you are hereby notified that the school examination of_____ shows that there is some trouble with the EARS, EYES, which needs competent medical advice. Please attend to this at once.

_____ *Teacher.*

_____ _____ 190



Commonwealth of Massachusetts.

NOTICE TO PARENT OR GUARDIAN.

In accordance with chapter 502 of the Acts of 1906 you are hereby notified that_____ has been examined by me as school physician and found to have symptoms of_____

PLEASE SECURE COMPETENT MEDICAL ADVICE AT ONCE.

_____ *School Physician.*

_____ _____ 190

Teachers' Institutes.

The practice of holding the annual meetings of the county associations of teachers in the autumn having now become general, and the practice of closing schools on the days of the county agricultural fairs having become common, the Board finds increasing difficulty in providing for autumn meetings of teachers' institutes. This is to be regretted, because for school purposes the institute is likely to be more effective if held early in the school year.

If institutes are still to be held, it appears to be necessary to hold all of them or most of them in the spring. That the institutes are appreciated by the school authorities and by teachers is shown by the large attendance. A few years ago it was necessary to make considerable effort to secure the closing of schools for institutes; now, an invitation is all that is

needed, and in some cases superintendents come with their teachers on hearing of an institute. The means of transportation by street lines have so increased that a single meeting can serve a large territory; consequently, most of the institutes have been large enough to divide into primary, grammar and high school sections. This specializing of the work is appreciated by the teachers, who know that they are likely to find their own needs met.

In most of the meetings a general address is provided for the opening and another for the closing exercises. Between these are usually four exercises for each of the three sections.

The following subjects have been treated by the persons named: —

Fundamentals of Citizenship, The Transient and the Permanent in Education, The Essential Purpose of the Modern Course of Study, Teaching and Teachers for the Times, — by the secretary of the Board.

Class Management, The Development Method, High School English, Grammar School English, Defects in English, Grammar School Arithmetic, — by Mr. Prince, agent of the Board.

English, Composition, Geometry, Elementary Science, Mathematics, Geography, History, Oral Reading, Practical Applications of the Laws of Apperception, — by Mr. MacDonald, agent of the Board. Mr. MacDonald has also conducted several conferences with high school teachers.

The Place of Art in Public Education, Art Appreciation, Industrial Training, and lessons and conferences in drawing, — by Mr. Sargent, agent of the Board.

General addresses have been given as follows: —

The New Education, — by Rev. Byron W. Forbush, D.D., New York.

Talk on Birds (illustrated), — by E. H. Forbush, ornithologist, State Board of Agriculture.

Physiology and Temperance Instruction, — by J. Asbury Pitman, Principal, Salem State Normal School.

Nature Study, — by Prof. C. F. Hodge, Clark University.

The Present Need in Education, — by Prof. John M. Tyler, Amherst College.

Lessons have been given in different subjects as follows: —

Language and reading: —
Miss Harriet S. Hayward, Brockton.
Miss Clara E. Craig, Providence, R. I.
Miss Mabel C. Bragg, Lowell.
Miss Bertha M. McConkey, Springfield.
Mr. Henry L. Clapp, Boston.
Miss Mary L. Baright, North Adams.
Miss Katharine H. Shute, Boston.
Miss Ella L. Sweeney, Providence, R. I.
Miss Jennie S. Baldwin, Hyannis.

Arithmetic: —
Miss Lillian A. Hicks, Bridgewater.
Mr. Frank F. Murdock, North Adams.
Mr. Albert L. Barbour, Natick.
Miss Gertrude E. Bigelow, Boston.
Mr. J. H. Carfrey, Wakefield.
Miss Susan G. Lombard, North Adams.
Miss Bertha M. McConkey, Springfield.

Geography: —
Mr. Charles H. Morrill, Hyannis.
Miss Gertrude M. Wilcox, Hyannis.
Miss Lillian A. Ordway, Framingham.
Miss Nellie B. Allen, Fitchburg.
Mr. Charles P. Sinnott, Bridgewater.
Miss Bertha M. McConkey, Springfield.

History: —
Mr. Albert P. Walker, Boston.
Mr. Arthur C. Boyden, Bridgewater.
Miss Caroline Close, Cambridge.
Miss Grace L. Deering, Cambridge.
Miss Mabel Hill, Lowell.

Nature study: —
Mr. Clarence M. Weed, Lowell.
Miss Sarah E. Brassill, Cambridge.

Elementary science: —
Mr. Frank M. Gilly, Chelsea.

Latin: —
Mr. Selden L. Brown, Wellesley.

Modern languages: —
Mr. W. B. Snow, Boston.

English: —
Mr. Alfred M. Hitchcock, Hartford, Conn.

Drawing: —
Mr. Fred H. Daniels, Springfield.
Mr. Willis B. Anthony, North Adams.

Technical education: —
Mr. Charles F. Warner, Springfield.

The statistics of the institutes for 1906 are as follows: —

Where held.	Date.	Number of towns represented.	Number of members.	Number of exercises.	By whom conducted.
Amherst,	May 1,	9	87	10	John T. Prince.
Athol,	May 2,	10	131	12	James W. MacDonald.
Ayer,	Oct. 24,	11	116	14	James W. MacDonald.
Barre,	May 3,	5	54	7	James W. MacDonald.
Danvers,	March 8,	8	141	13	James W. MacDonald.
Gloucester,	March 9,	7	218	13	James W. MacDonald.
Hyannis,	Nov. 15,	15	152	9	John T. Prince.
Hyde Park,	Oct. 12,	12	362	14	John T. Prince.
Montague (Turners Falls),	April 27,	9	145	14	John T. Prince.
Newburyport,	Oct. 3,	8	171	13	James W. MacDonald.
North Adams,	Oct. 18,	18	379	14	John T. Prince.
North Attleborough,	April 25,	14	278	13	John T. Prince.
Palmer,	May 9,	11	177	13	James W. MacDonald.
Rockland,	April 20,	20	340	13	John T. Prince.
Shelburne (Falls),	May 11,	11	100	12	James W. MacDonald.
Somerset,	Nov. 7,	10	95	10	John T. Prince.
Southbridge,	May 4,	7	145	14	James W. MacDonald.
Westborough,	May 7,	7	131	13	James W. MacDonald.
Westfield,	Oct. 17,	16	220	14	John T. Prince.
Totals (19),		208	3,442	235	

Conferences conducted by Mr. MacDonald were held in connection with the institutes at Athol, Danvers, Gloucester, Newburyport, Palmer, Westborough and Westfield, on the following subject: "In most high schools there is a large number of the pupils who never properly prepare work or make a satisfactory recitation, — what is the cause and the remedy?"

At the institute at Shelburne Falls Mr. Prince conducted a conference on "English: how can better results be secured in every recitation as well as in special English studies?" An-

other conference was conducted by Mr. Prince, in connection with the institute at Hyannis, on "Needs and opportunities of the high schools of Barnstable County."

A conference for kindergarten and grade 1 teachers was held at the North Adams institute. The following subjects were discussed: "The necessity of using large material," "The interpretation of modern city life," "How to prevent a break between the kindergarten and primary grades," — Mrs. Graves, Miss Lamphier and Miss McVey of the State Normal School taking part.

Conferences were held by Mr. Sargent with the supervisors and special teachers of drawing in connection with the institutes at Ayer, Hyde Park, Newburyport and North Adams. Mr. C. F. Whitney assisted Mr. Sargent at the Newburyport conference.

Evening sessions were held in connection with the following institutes: Hyannis, — address by Mr. Martin on "Teaching and teachers of the times;" North Adams and Westfield, — short addresses on "Industrial education in the public schools," by Mr. Walter Sargent, Mr. R. L. Thompson, Mr. T. W. Sykes, Mr. H. C. Wood, Mr. H. A. Gallop, Mr. W. B. Anthony and others.

Evening Schools.

Evening schools are maintained under the following statute: —

Revised Laws, Chapter 42, Section 11.

Any town may, and every city or town of ten thousand or more inhabitants shall, maintain annually evening schools for the instruction of persons over fourteen years of age in orthography, reading, writing, the English language and grammar, geography, arithmetic, industrial drawing, both free hand and mechanical, the history of the United States, physiology and hygiene, and good behavior. Such other subjects may be taught in such schools as the school committee consider expedient.

It appears from the table on page xciii, Abstract of the School Returns, that all the towns to which the law applies maintained evening schools during the school year 1904–05 excepting Melrose, Plymouth, Revere, Wakefield and Weymouth. Of these, Melrose has not found a sufficient number of persons desiring such a school to form a class. The city pays the tuition in

neighboring schools of the few who desire the instruction. Wakefield, Weymouth and Plymouth have evening schools this year. Ten towns having less than 10,000 inhabitants have maintained evening schools.

There is a feature of the evening school requirements which may in the near future need to be remedied by legislation. By the provision of section 35, chapter 106 of the Revised Laws, as amended by chapter 183, Acts of 1902, illiterate minors over fourteen years of age may not be employed while a public evening school is in session, unless the person is a regular attendant at the evening school or at a day school. Illiterate minors over sixteen years of age in towns which do not maintain evening schools may be employed. It results from this that a considerable number of illiterates are without provision for instruction; and that, of two adjoining towns both of which may contain illiterate minors, one having just over 10,000 inhabitants is obliged to make provision for their instruction, while the other having just under 10,000 inhabitants is exempt. Some provision needs to be made to remedy these defects.

The following table shows what is being done in the State to furnish instruction beyond the elements in evening schools: —

Cities and towns.	Drawing.	High.	Commercial.	Cities and towns.	Drawing.	High.	Commercial.
Attleborough,	2	–	–	Lynn,	2	–	–
Beverly,	3	2	1	Malden,	1	–	–
Boston,	6	6	–	Medford,	1	1	–
Brockton,	2	1	–	New Bedford,	1	1	–
Brookline,	1	–	1	Newton,	1	2	–
Cambridge,	2	1	1[1]	North Adams,	1	–	–
Chicopee,	1	–	–	Northampton,	1	–	–
Clinton,	1	–	–	Pittsfield,	2	2	–
Everett,	1	–	2	Quincy,	1	–	–
Fall River,	2	2	–	Salem,	1	–	–
Framingham,	–	1	–	Somerville,	–	1	–
Gardner,	–	1	–	Springfield,	2	1	1[2]
Greenfield,	1	–	–	Taunton,	3	–	–
Haverhill,	2	–	1	Waltham,	1	–	1
Holyoke,	–	1	–	Woburn,	1	–	2
Hyde Park,	1	–	1	Worcester,	3	1	1[3]
Lawrence,	1	1	–				
Lowell,	4	1	–	Totals,	52	26	12

[1] Manual training. [2] Trades. [3] Cooking.

Kindergartens.

Table showing the number and location of public kindergartens kept during the year 1905–06, and cost of their maintenance.

Cities and towns.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.	Cost.
Attleborough,	2	3	106	4	$1,674 58
Andover,	3	4	122	3½	1,961 25
Boston,	99	185	7,054	3½	143,976 13
Braintree,	5	5	149	4	2,350 00
Bridgewater,	1	2	42	3½	1,500 00
Brookline,	11	20	527	3½	15,665 31
Cambridge,	16	32	971	3½	19,873 11
Chelsea,	2	2	115	5	10 00
Chicopee,	2	2	79	3	–
Cohasset,	1	1	20	4	367 36
Dedham,	4	8	161	3½	2,846 91
Easton,[1]	1	2	56	3	625 00
Fall River,	3	6	204	3	2,811 60
Falmouth,	1	1	28	3½	500 00
Framingham,	1	1	25	4	665 00
Greenfield,	2	2	80	3½	906 00
Haverhill,	8	8	237	3¾	2,500 00
Holyoke,	7	14	457	4½	7,055 81
Hopedale,	1	2	29	4	1,150 64
Lee,[2]	1	1	35	3½	966 00
Leicester,	1	1	21	4½	375 00
Lowell,	13	25	750	3½	1,308 08

[1] Supported by income of Oakes Ames Fund.
[2] Supported by private individuals. Town appropriates $300.

Number and location of public kindergartens, etc. — Concluded.

Cities and towns.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.	Cost.
Marblehead,	2	4	98	4	$1,375 00
Medford,	7	5	261	4½	3,685 00
Milton,	4	7	177	3½	4,800 00
New Bedford,	3	6	176	4	4,321 00
Newton,	14	29	739	4	14,000 00
North Adams,	6	11	353	4	4,000 00
Northampton,	4	7	149	4	–
Pittsfield,	2	4	117	4	1,800 00
Salem,	5	10	252	4	4,405 00
Somerville,	4	8	412	4	3,909 00
Springfield,	14	26	1,147	4	15,139 76
Sutton,	1	2	102	5	351 00
Wellesley,	1	2	27	3	600 00
Westfield,	5	9	158	4½	–
West Springfield,	3	3	148	4½	1,191 03
Winchester,	2	4	107	4	1,615 76
Worcester,	17	32	956	4	20,317 91
Totals (39),	279	496	16,647	3 to 5 yrs.	$290,598 24

Vacation Schools.

In 1905 there were 31 schools supported at public expense, in 11 towns and cities, as shown by the following table: —

Cities and towns.	Number of —			Average length of schooling.		Total expenditure for support of schools.
	Schools.	Teachers.	Pupils.	Mos.	Days.	
Athol,	1	4	63	–	15	$27 00
Attleborough,	3	6	127	1	15	541 53
Boston,	10	142	9,174	1	–	8,151 03
Brookline,	3	11	648	1	10	1,598 42
Cambridge,	5	26	1,159	1	5	1,679 64
Haverhill,	3	26	1,336	1	5	844 54
Lawrence,	2	10	325	1	–	433 35
Medford,	1	3	136	2	10	150 00
Milford,	1	3	119	1	10	138 00
Newton,	1	14	336	1	10	865 20
Winchendon,	1	2	30	1	–	60 00
Totals (11),	31	247	13,453	1	7	$14,588 71

State Aid for High Schools.

Towns containing 500 families are required by law to maintain high schools. Other towns may maintain such schools, and on certain conditions may receive State aid to the amount of $300. (By the provision of chapter 200, Acts of 1906, the amount of the grant is to be $500.)

The following 37 towns, having complied with the conditions, were entitled to receive the $300 grant in 1906. Twenty-six towns received the grant in 1903, 34 in 1904, and 36 in 1905.

Of the high schools that received the grant in 1905, 4 have dropped from the list, the last census showing them to have

more than 500 families. They are Kingston, Ludlow, Norton and Wayland.

Ashby,
Ashfield,
Ashland,
Avon,
Bernardston (Powers Institute),
Bolton,
Charlton,
Chester,
Conway,
Edgartown,
Essex,
Granby,
Hadley,
Huntington,
Littleton,
Lunenburg,
Mendon,
Millis,
New Salem,
Northborough,
Northfield,
Norwell,
Orleans,
Plainville,
Rutland,
Sandwich,
Sharon,
Sheffield,
Shelburne,
Shrewsbury,
Southborough,
Sudbury,
Tisbury (Vineyard Haven),
West Boylston,
West Newbury,
Wilmington,
Wrentham.

Reimbursement for High School Tuition.

Towns not required by law to maintain a high school are required to make provision for high school instruction in other towns. Under certain conditions they may be reimbursed by the State for the whole or for one half of the cost of such instruction.

Under the provisions of the law, 100 towns, sending 1,077 pupils, were reimbursed wholly or in part by the State. The number of towns is 6 smaller and the number of pupils 117 less than last year. The amount contributed by the State for their tuition was $36,196.67. The total obligation of the State for the year was $47,296.67; the appropriation for the purpose was $44,458.33; leaving a deficiency of $2,838.34.

Twenty-four towns, having a valuation per pupil in excess of the State average ($7,355), were not reimbursed. Twenty towns failed to avail themselves of the law. Eight of these maintain high schools. Only 13 towns have no pupils receiving high school instruction. These towns contain only 789 children between the ages of five and fifteen.

Table showing high school tuition reimbursements under section 3, chapter 42, Revised Laws, as amended by chapter 433, Acts of 1902.

[NOTE.— Towns the names of which are italicized were reimbursed by the State for half tuition expenditures only.]

TOWNS.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Acushnet,	4	New Bedford,	$78 10	$312 42
"	6	Fairhaven,	50 00	300 00
Alford,	5	Great Barrington (Searles),	54 00	234 00
Auburn,	13	Worcester (English),	60 00	367 50
"	1	Worcester (Classical),	60 00	30 00
Becket,	9	Chester,	60 00	429 00
"	1	Pittsfield,	36 00	36 00
"	2	Westfield,	50 00	100 00
"	2	Springfield (Central),	75 00	150 00
"	1	Lee,	50 00	50 00
Bedford,	41	Concord,	48 00	952 00
Bellingham,	5	Milford,	38 00	95 00
"	14	Franklin,	28 50	157 50
Berkley,	2	Fall River,	60 00	120 00
"	5	Taunton,	50 00	191 75
Berlin,	10	Clinton,	40 00	396 00
"	7	Northborough,	30 00	192 00
"	5	Hudson,	40 00	175 00
Blandford,	1	Chester,	60 00	60 00
"	6	Westfield,	50 00	280 00
Boxborough,	11	Concord,	48 00	512 00
Boylston,	1	Worcester (Classical),	60 00	60 00
"	3	Worcester (English),	60 00	165 00
"	2	Clinton,	40 00	80 00
Buckland,	34	Shelburne Falls (Arms Academy).	36 00	1,164 00
Carlisle,	2	Lowell,	60 00	120 00
"	8	Concord,	48 00	352 00

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Charlemont,	1	North Adams,	$45 00	$45 00
"	24	Shelburne Falls (Arms Academy).	36 00	792 00
Cheshire,	14	Adams,	30 00	390 00
Clarksburg,	14	North Adams,	45 00	615 00
Colrain,	33	Shelburne Falls (Arms Academy).	36 00	1,062 00
"	1	Greenfield,	30 00	30 00
Cummington,	6	Northampton,	50 00	300 00
Dana,	1	Springfield (Central),	75 00	75 00
"	5	Athol,	36 00	152 10
"	1	Barre,	40 00	28 00
"	4	New Salem,	30 00	120 00
Dunstable,	1	Lowell,	60 00	60 00
Eastham,	10	Orleans,	32 00	317 60
East Longmeadow,	17	Springfield (Central),	75 00	1,215 00
" "	1	Springfield (Technical),[1]	75 00	75 00
" "	1	West Springfield,	50 00	38 75
Egremont,	9	Great Barrington (Searles),	54 00	477 00
Enfield,	5	Athol,	36 00	180 00
Erving,	10	Greenfield,	30 00	300 00
"	1	Montague (Centre),	30 00	30 00
"	10	Orange,	40 00	324 00
"	1	Athol,	36 00	36 00
Florida,	2	North Adams,	45 00	90 00
"	1	Shelburne Falls (Arms Academy).	36 00	12 00
Freetown,	5	Fall River,	60 00	142 50
Gill,	11	Montague (Turners Falls),	30 00	300 00
Goshen,	1	Northampton,	50 00	50 00
"	1	Williamsburg (Centre),	26 00	26 00
"	2	Ashfield,	30 00	60 00
Granville,	1	Springfield (Central),	75 00	75 00
"	4	Westfield,	50 00	200 00
Greenwich,	7	Athol,	36 00	235 50

[1] Academic course only.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Halifax,	1	Bridgewater,	$50 00	$50 00
Hampden,	1	Springfield (Central),	75 00	75 00
Hanson,	19	Whitman,	30 00	550 00
"	2	Rockland,	40 00	80 00
"	1	Hanover,	30 00	30 00
Hawley,	1	Greenfield,	30 00	30 00
"	4	Shelburne Falls (Arms Academy).	36 00	132 00
"	1	Northampton,	50 00	50 00
Heath,	7	Shelburne Falls (Arms Academy).	36 00	204 00
Hinsdale,	12	Dalton,	30 00	216 00
"	5	Pittsfield,	36 00	180 00
Hubbardston,	7	Gardner,	30 00	130 00
"	3	Barre,	40 00	102 00
Lakeville,	18	Middleborough,	40 00	696 00
Lanesborough,	5	Pittsfield,	36 00	139 50
"	2	Adams,	30 00	35 00
Leverett,	7	Amherst,	35 00	245 00
"	7	Montague (Centre),	30 00	210 00
Longmeadow,	19	Springfield (Central),	75 00	690 00
"	1	Springfield (Technical),[1]	75 00	37 50
Lynnfield,	19	Wakefield,	40 00	709 00
"	1	Lynn,	60 00	45 00
"	5	Peabody,	45 00	199 00
Medfield,	4	Dedham,	45 00	90 00
"	4	Walpole,	35 00	70 00
Middlefield,	3	Chester,	60 00	126 00
Middleton,	11	Danvers,	50 00	525 00
Monroe,	2	North Adams,	45 00	60 00
Monterey,	4	Great Barrington (Searles),	54 00	216 00
Montgomery,	1	Westfield,	50 00	50 00
"	5	Huntington,	45 00	220 50
Mount Washington,	3	Great Barrington (Searles),	54 00	78 00

[1] Academic course only.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
New Braintree,	1	Warren,	$25 00	$13 50
" "	2	North Brookfield,	40 00	80 00
Newbury,	8	Newburyport,	12 00[1] 15 00[1]	51 00
New Marlborough,	6	Great Barrington (Searles),	54 00	288 00
Norfolk,	1	Wrentham,	40 00	40 00
"	2	Walpole,	35 00	60 38
North Reading,	36	Reading,	40 00	1,224 00
Oakham,	1	Barre,	40 00	40 00
"	1	Rutland,	40 00	40 00
Otis,	1	Westfield,	50 00	50 00
Paxton,	4	Worcester (Classical),	60 00	240 00
"	1	Worcester (English),	60 00	60 00
Pelham,	8	Amherst,	35 00	280 00
Pembroke,	2	Rockland,	40 00	36 00
Peru,	1	Dalton,	30 00	11 25
Petersham,	1	Gardner,	30 00	30 00
"	4	Athol,	36 00	136 00
"	3	Barre,	40 00	120 00
Phillipston,	4	Athol,	36 00	144 00
"	2	Templeton,	40 00	54 00
Plainfield,	2	Northampton,	50 00	100 00
"	2	Ashfield,	30 00	40 00
Plympton,	3	Middleborough,	40 00	120 00
"	4	Kingston,	30 00	90 00
Prescott,	2	Amherst,	35 00	70 00
"	2	Athol,	36 00	72 00
"	2	New Salem,	30 00	60 00
Raynham,	12	Taunton,	50 00	556 25
"	7	Bridgewater,	50 00	240 00
"	2	Easton,	36 00	72 00
Rehoboth,	8	Taunton,	50 00	193 75

[1] For foreign languages only.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Rehoboth,	3	Attleborough,	$50 00	$60 00
"	2	Fall River,	60 00	30 00
Richmond,	8	Pittsfield,	36 00	263 70
Rochester,	5	Wareham,	36 00	180 00
Rowe,	1	Bernardston (Powers Institute).	21 00	21 00
"	1	North Adams,	45 00	45 00
"	3	Shelburne Falls (Arms Academy).	36 00	108 00
Rowley,	12	Ipswich,	40 00	421 00
"	5	Newburyport,	48 00	176 00
Royalston,	8	Athol,	36 00	257 00
"	1	Winchendon,	28 00	28 00
"	1	Templeton,	40 00	40 00
Russell,	7	Huntington,	45 00	228 37
"	2	Westfield,	50 00	61 25
Salisbury,	15	Newburyport,	12 00[1] / 15 00[1]	89 50
"	1	Amesbury,	30 00	15 00
Savoy,	1	Adams,	30 00	20 00
Seekonk,	7	Attleborough,	50 00	122 50
"	10	Fall River,	60 00	198 75
Shirley,	1	Ayer,	20 00	10 00
"	3	Fitchburg,	48 00	50 00
Shutesbury,	2	Amherst,	35 00	42 20
"	2	Montague (Centre),	30 00	40 00
Southampton,	10	Easthampton,	40 00	375 00
"	1	Northampton,	50 00	50 00
"	1	Westfield,	50 00	50 00
Southwick,	9	Westfield,	50 00	450 00
Sterling,	2	Leominster,	40 00	40 00
Sturbridge,	26	Southbridge,	30 00	350 00
Sunderland,	1	Greenfield,	30 00	30 00
"	13	Amherst,	35 00	455 00

[1] For foreign languages only.

High school tuition reimbursements, etc. — Concluded.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Swansea,	27	Fall River,	$60 00	$780 00
Tewksbury,	47	Lowell,	60 00	1,283 20
Truro,	2	Provincetown,	40 00	80 00
"	3	Wellfleet,	40 00	110 00
Tyngsborough,	15	Lowell,	60 00	820 00
Warwick,	1	Northfield,	23 75	23 75
"	3	Orange,	40 00	120 00
Washington,	1	Westfield,	50 00	50 00
"	2	Chester,	60 00	102 00
Wendell,	3	Orange,	40 00	120 00
"	2	New Salem,	30 00	40 00
West Bridgewater,	1	Easton,	36 00	18 00
West Brookfield,	24	Warren,	25 00	266 25
" "	1	Worcester (English),	60 00	30 00
" "	1	Ware,	40 00	20 00
Westhampton,	8	Northampton,	50 00	400 00
"	1	Huntington,	45 00	45 00
Westminster,	1	Fitchburg,	48 00	48 00
West Stockbridge,	8	Pittsfield,	36 00	254 70
" "	11	Great Barrington (Searles),	54 00	567 00
West Tisbury,	3	Tisbury (Vineyard Haven),	40 00	114 00
Whately,	10	Northampton,	50 00	450 00
"	1	Greenfield,	30 00	9 00
Williamsburg,	4	Northampton,	50 00	100 00
Windsor,	1	Northampton,	50 00	50 00
"	1	Adams,	30 00	30 00
"	4	Dalton,	30 00	101 25
"	1	Ware,	40 00	40 00
Totals (100 towns),	1,077	74 schools,	$41 06	$36,196 67

The following 24 towns have a valuation per pupil in excess of the State average ($7,355): —

Boxford,	Harvard,	Stockbridge,
Burlington,	Hopedale,	Topsfield,
Carver,	Hull,	Tyringham,
Chilmark,	Lincoln,	Wellfleet,
Cottage City,	Marion,	Wenham,
Dover,	Mattapoisett,	Weston,
Gosnold,	Nahant,	Westwood,
Hamilton,	New Ashford,	Yarmouth.

High School Organizations.

The discussion in the sixty-ninth report of the Board was followed by the passage by the Legislature of 1906 of the following statute: —

Acts of 1906, Chapter 251.

An Act relative to the authority of school committees over organizations of school pupils.

Section 1. The school committee may supervise and control all athletic organizations composed of pupils of the public schools and bearing the name of the school.

Section 2. It may directly or through an authorized representative determine under what conditions such organizations may enter into competition with similar organizations in other schools. [*Approved April 5, 1906.*

While this law refers only to athletic organizations, it serves to strengthen school authorities in the efforts to regulate all other organizations composed of school pupils.

Secret societies have become a source of much annoyance, and the necessity has arisen in many localities of dealing with them with a firm hand.

A recent decision of the Supreme Court of Washington has attracted wide attention, in that it sustained the school authorities in enforcing prohibitory regulations against students who became members of secret Greek letter societies, although these societies met at the homes of the members in the evening, with the consent of the parents.

The ground of the decision was the injurious influence of such societies upon school discipline, as proved by the testimony of school principals and by the published utterances of the general officers of the affiliated societies.

While the students might attend school and share in the common class privileges, they might be denied membership in other school organizations and participation in the customary graduation honors. They must choose between membership in the secret society and a share in the broader life of the school. The decision will probably help to clear the air in other States than Washington.

List of superintendents, alphabetically arranged, with their superintendencies, Jan. 21, 1907.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Adams, Charles F.,	$1,500	Spencer,	Spencer.
Adams, O. H.,	1,600	Leicester,	Charlton, Leicester.
Aldrich, George I.,	4,000	Brookline,	Brookline.
Allen, H. L.,	1,500	Dalton,	Cheshire, Dalton.
Allison, J. Francis,	1,500	West Stockbridge,	Alford, Egremont, Richmond, West Stockbridge.
Anthony, John C.,	1,500	Braintree,	Braintree.
Armstrong, George P.,	2,400	Belmont,	Belmont, Lexington.
Atwell, F. G.,	1,500	Baldwinsville,	Hubbardston, Phillipston, Royalston, Templeton.
Averill, Andrew P.,	1,600	Edgartown,	Chilmark, Cottage City, Edgartown, Gay Head, Tisbury, West Tisbury.
Badger, Abner A.,	1,800	East Weymouth,	Weymouth.
Bagnall, Francis A.,	2,400	Adams,	Adams.
Baldwin, Edward G.,	1,500	West Brookfield,	New Braintree, Sturbridge, West Brookfield.
Barbour, Albert L.,	2,200	Natick,	Natick.
Barr, Preston,	1,500	Lee,	Lee, Monterey, Otis, Tyringham.
Bates, Charles H.,	1,800	Middleborough,	Middleborough.
Bates, William C.,	3,500	Cambridge,	Cambridge.
Bemis, George M.,	1,500	Plainville,	Norton, Plainville, Wrentham.
Benedict, Frank H.,	1,500	Sutton,	Auburn, Sutton.
Blodgett, S. F.,	2,000	South Framingham.	Framingham.
Bowman, Mortimer H.,	1,500	Hatfield,	Bernardston, Hadley, Hatfield.
Bradley, John E.,	1,500	Randolph,	Avon, Holbrook, Randolph.
Breck, Charles A.,	1,200	Methuen,	Methuen.
Brehaut, James W.,	1,900	North Attleborough.	North Attleborough.
Brick, Francis S.,	1,650	Uxbridge,	Douglas, Uxbridge.
Brockway, Clarence E.,	1,900	West Springfield,	West Springfield.
Brooks, Stratton D.,	6,000	Boston,	Boston.
Burke, J. E., assistant,	3,780	Boston,	Boston.
Byram, Charles A.,	2,300	Pittsfield,	Pittsfield.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Carfrey, J. H.,	$1,900	Wakefield,	Lynnfield, Wakefield.
Carr, Ernest P.,	1,650	Ayer,	Ayer, West Boylston.
Chace, Seth Howard,	2,000	97 18th Street, Lowell.	Dracut, North Reading, Tewksbury, Tyngsborough.
Chaffin, W. E.,	1,625	West Dennis,	Brewster, Dennis, Yarmouth.
Chapman, Ira T.,	1,500	Huntington,	Blandford, Huntington, Montgomery, Russell.
Clapp, George I.,	1,900	Woburn,	Woburn.
Clay, Charles L.,	1,600	Harvard,	Bolton, Boylston, Harvard, Shirley.
Cobb, Edwin S.,	1,500	Dighton,	Berkley, Dighton, Rehoboth.
Coggins, W. L.,	1,000	Rockland,	Rockland.
Cole, Albert S.,	1,500	North Dartmouth,	Dartmouth, Westport.
Collins, Arthur J.,	1,600	Danvers,	Danvers.
Congdon, F. K.,	2,000	Northampton,	Northampton.
Corbin, F. E.,[1]	2,000	Southbridge,	Southbridge.
Cox, George W.,	2,000	Ware,	Ware.
Cragin, W. N.,	1,800	Bedford,	Bedford, Burlington, Lincoln, Wilmington.
Davison, F. P.,	1,800	Turners Falls,	Montague.
De Meyer, John E.,	1,500	North Scituate,	Duxbury, Marshfield, Scituate.
Dixon, Edward,	1,600	Orange,	Orange.
Douglas, Frank A.,[1]	1,750	Winthrop,	Winthrop.
Dressel, Herman, Jr.,	1,800	Great Barrington,	Great Barrington.
Durfee, Everett B.,	3,000	Fall River,	Fall River.
Eaton, Charles M.,[1]	2,000	Weston,	Weston.
Edgerly, Joseph G.,	2,700	Fitchburg,	Fitchburg.
Edson, Marshall O.,	1,500	Sandwich,	Bourne, Mashpee, Sandwich.
Eldredge, William F.,	1,000	Rockport,	Rockport.
Ellinwood, George F.,	1,500	Belchertown,	Enfield, Belchertown.
Evans, Osman C.,	1,500	74 Westford Street, Lowell.	Billerica, Pepperell.
Fales, Lewis A.,	1,600	Attleborough,	Attleborough.
Fish, Charles E.,	1,620	Manchester,	Amesbury, Manchester.
Fitts, Edward P.,	1,650	Mansfield,	Mansfield, Sharon, Stoughton.
Freeman, L. A.,	1,500	Foxborough,	Foxborough, Seekonk.
Frost, Gaius B.,	1,500	Georgetown,	Georgetown, Groveland, Rowley.
Fuller, Robert J.,	1,800	Palmer,	Palmer.
Galger, George H.,	1,500	Hyannis,	Barnstable.
Gamwell, Irving H.,[1]	1,800	Franklin,	Franklin.
Gay, George E.,	2,500	Haverhill,	Haverhill.
Gifford, John B.,	1,080	Marblehead,	Marblehead.

[1] Unites teaching with supervising.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Godard, Harlow,	$1,500	Lenox,	Lenox.
Goodhue, E. W.,	1,500	Haydenville,	Chesterfield, Williamsburg. Worthington.
Gordy, Wilbur F.,	4,000	Springfield,	Springfield.
Gray, John C.,	2,000	Chicopee,	Chicopee.
Gregory, B. C.,	2,800	Chelsea,	Chelsea.
Grout, Edgar H.,	1,500	East Bridgewater,	East Bridgewater, Raynham, West Bridgewater.
Grover, G. Alvin,	1,600	Charlemont,	Charlemont, Florida, Hawley, Heath, Monroe, Rowe.
Gushee, W. E.,	1,600	Agawam,	Agawam, Ludlow.
Haley, C. W.,	1,800	Milford,	Milford.
Hall, Charles P.,	1,500	Shelburne Falls,	Buckland, Colrain, Shelburne.
Hall, I. Freeman,	2,850	North Adams,	North Adams.
Hall, Wells A.,[1]	–	Concord,	Concord.
Hardy, A. L.,	1,800	Amherst,	Amherst, Pelham.
Harris, C. A.,	1,700	Hanover,	Hanover, Hanson, Norwell.
Harrub, H. W.,	2,200	Taunton,	Taunton.
Hatch, William E.,	4,000	New Bedford,	New Bedford.
Hayward, Harriet S., Ass't,	1,500	Brockton,	Brockton.
Heald, A. A.,	1,500	Wareham,	Marion, Wareham.
Heavens, Francis J.,	2,000	Plymouth,	Plymouth.
Hervey, Henry D.,	2,700	Malden,	Malden.
Hill, Frank H.,	1,600	Harwich,	Chatham, Eastham, Harwich Orleans.
Hine, Roderick W.,	2,200	Dedham,	Dedham.
Hobbs, W. C.,	2,000	Norwood,	Norwood.
Howard, Elmer F.,	1,625	East Northfield,	Gill, Leyden, Northfield, Warwick.
Howard, Nelson G.,	2,300	Hingham Centre,	Cohasset, Hingham, Hull.
Howes, Alfred F.,	1,500	Sheffield,	Mt. Washington, New Marlborough, Sheffield.
Humphrey, Chester W.,	1,500	Rochester,	Carver, Lakeville, Rochester.
Hunt, Charles L.,	2,000	Clinton,	Clinton.
Hutchinson, S. C.,	1,500	Cochituate,	Dover, Sudbury, Wayland.
Jacoby, Asher J.,	2,400	East Milton,	Milton.
Johnson, George E.,	2,200	Hyde Park,	Hyde Park.
Jones, Herbert J.,	1,600	Holden,	Holden, Oakham, Paxton, Rutland.
Judkins, Clarence L.,	1,500	Ashfield,	Ashfield, Cummington, Goshen, Plainfield.
Kendall, F. L.,	1,500	Chelmsford,	Carlisle, Chelmsford, Dunstable.
Kingman, F. W.,	1,600	Walpole,	Medfield, Walpole.
Knox, Herman N.,	1,500	Somerset,	Freetown, Somerset, Swansea.
Lea, Watson C.,	1,600	Millbury,	Millbury, Oxford.

[1] Acting Superintendent and principal of the high school.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Lewis, Alvan R.,	$1,500	Provincetown,	Provincetown, Truro, Wellfleet.
Lewis, Homer P.,	4,000	Worcester,	Worcester.
Lewis, Mary A., Ass't,	1,300	Cambridge,	Cambridge.
Lincoln, Mary L.,	1,000	Lancaster,	Lancaster.
Loring, Everett G.,	1,500	Kingston,	Halifax, Kingston, Pembroke, Plympton.
Lyman, C. S.,	1,200	Hudson,	Hudson.
Mackin, John C.,	1,500	Maynard,	Boxborough, Maynard, Stow.
Manning, John H.,	1,550	Groton,	Groton.
Marsh, Frank M.,	1,800	Fairhaven,	Acushnet, Fairhaven, Mattapoisett.
Martin, Robert W.,	700	Ipswich,	Ipswich.
Mason, Wallace E.,[1]	1,900	North Andover,	North Andover.
McCooey, J. P.,	900	Blackstone,	Blackstone.
Melcher, S. A.,	2,250	Whitinsville,	Northbridge.
Merriam, Burr Jay,	1,500	Brookfield,	Brookfield, North Brookfield.
Metcalf, Robert C.,	2,000	Winchester,	Winchester.
Miller, W. D.,	1,600	Easthampton,	Easthampton, Southampton, Westhampton.
Mitchell, Walter G.,	1,200	Williamstown,	Williamstown.
Morrell, James G.,	1,500	Georgetown,	Boxford, Newbury, Salisbury, West Newbury.
Morss, Charles H.,	2,800	Medford,	Medford.
Morton, Orion A.,	1,800	Marlborough,	Marlborough.
Nickerson, Fred H.,	2,350	Melrose,	Melrose.
O'Donnell, J. J.,	3,000	Holyoke,	Holyoke.
Page, Frank R.,	2,000	Watertown,	Watertown.
Palmer, Corwin F.,	1,900	Andover,	Andover.
Parker, Walter S., Ass't,	3,780	Boston,	Boston.
Parkinson, William D.,	2,200	Waltham,	Waltham.
Parlin, Frank E.,	2,800	Quincy,	Quincy.
Pearson, Parker T.,	1,500	Warren,	Holland, Wales, Warren.
Peaslee, Frank J.,	3,000	Lynn,	Lynn.
Pelo, W. J.,	1,000	Swampscott,	Swampscott.
Perkins, James S.,	1,800	Canton,	Canton.
Perkins, John W.,	2,500	Salem,	Salem.
Perrin, Marshall L.,	1,500	Wellesley Hills,	Wellesley.
Poland, Mary L.,	1,500	15 Myrtle Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Wilbraham.
Pope, F. S., Jr.,	1,500	Easton,	Easton.
Pratt, Louis A.,	1,500	North Dana,	Dana, Greenwich, New Salem, Prescott.
Price, Wilfred H.,	1,500	Holliston,	Holliston, Medway, Sherborn.

[1] Unites teaching with supervising.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Prior, Charles F.,	$1,500	Granville,	Granville, Sandisfield, Southwick, Tolland.
Putney, Freeman,	2,300	Gloucester,	Gloucester.
Putney, Walter K.,	1,000	Needham,	Needham.
Rafter, Augustine L., Ass't,	3,780	Boston,	Boston.
Record, C. A.,	1,800	Abington,	Abington, Bridgewater.
Richardson, Herbert E.,	1,800	Greenfield,	Greenfield.
Riley, William E.,	1,500	Hinsdale,	Hinsdale, Peru, Savoy, Windsor.
Ripley, Mrs. Ellor E., Ass't,	3,780	Boston,	Boston.
Robinson, Albert,	1,750	Peabody,	Peabody.
Robinson, Ernest W.,	2,000	Webster,	Dudley, Webster.
Rugg, George,	1,500	Princeton,	Princeton, Sterling, Westminster.
Russell, B. B.,	3,000	Brockton	Brockton.
Safford, Adelbert L.,	2,200	Beverly,	Beverly.
Sanderson, W. H.,	1,500	Chester,	Becket, Chester, Middlefield, Washington.
Scully, John F.,	2,400	Arlington,	Arlington.
Sheridan, Bernard M.,	3,000	Lawrence,	Lawrence.
Sims, William F.,	1,500	Northborough,	Berlin, Northborough, Shrewsbury, Southborough.
Simmons, Charles L.,	2,300	Westfield,	Westfield.
Small, Robert O.,	1,725	Grafton,	Grafton, Upton.
Southworth, Gordon A.,	3,000	Somerville,	Somerville.
Spaulding, Frank E.,	4,000	Newtonville,	Newton.
Sprague, Wilbur B.,	1,700	Winchendon,	Ashburnham, Winchendon.
Stanger, Asa O.,	1,400	Falmouth,	Falmouth.
Stearns, Mrs. Cora A.,	1,500	Wendell Depot,	Erving, Leverett, Shutesbury, Wendell.
Stevens, Charles E.,	2,000	Stoneham,	Saugus, Stoneham.
Stone, Melville A.,	1,700	Reading,	Merrimac, Reading, Topsfield.
Taylor, Herbert F.,	1,800	Hopedale,	Bellingham, Hopedale, Mendon.
Thompson, Thomas E.,	2,000	Leominster,	Leominster.
Thompson, Victor V.,	1,500	Hopkinton,	Ashland, Hopkinton.
Thomson, Andrew S.,	1,500	Wenham Depot,	Essex, Hamilton, Middleton, Wenham.
Tower, A. O.,	1,500	Petersham,	Barre, Hardwick, Petersham.
Tucker, Charles A.,[1]	1,800	Stockbridge,	Stockbridge.
Tuttle, O. A.,[1]	1,350	Nahant,	Nahant.
Van Ornum, F. B.,	1,500	Cheshire,	Clarksburg, Hancock, Lanesborough, New Ashford.
Walradt, Henry M.,	1,000	Whitman,	Whitman.
Waldron, H. C.,	1,600	Westborough,	Westborough.
Ward, W. Scott,	2,000	Athol,	Athol.

[1] Unites teaching with supervising.

List of superintendents, alphabetically arranged, with their superintendencies — Concluded.

Superintendents.	Salaries.	Addresses.	Superintendencies.
Webber, Arthur B.,	$1,600	Littleton,	Acton, Littleton, Westford.
West, M. J.,	1,500	Millis,	Millis, Norfolk, Westwood.
Wheeler, F. A.,	1,500	Monson,	Brimfield, Monson.
Wheeler, Ulysses G.,	2,500	Everett,	Everett.
Whitcomb, Arthur K.,	3,000	Lowell,	Lowell.
White, Maurice P., Ass't,	3,780	Boston,	Boston.
Whitney, Fairfield,	1,700	Townsend,	Ashby, Lunenburg, Townsend.
Whittemore, F. E.,	1,500	South Hadley,	Granby, South Hadley.
Willard, Edgar L.,	1,600	Newburyport,	Newburyport.
Willson, Myron J.,	1,500	South Deerfield,	Conway, Deerfield, Sunderland, Whately.
Winslow, William H.,	2,000	Revere,	Revere.
Wood, Judson I.,	2,100	Gardner,	Gardner.

Union superintendencies.

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1	Duxbury,	1888	$1,929,218	10	1/3	$250 00	$416 67	$1,500 00	June 1,	Dr. Nathaniel K. Noyes, Duxbury.	Clara M. Skeele, Scituate.
	Marshfield,	1888	1,703,770	11	1/3	250 00	416 67				
	Scituate,	1888	3,727,573	12	1/3	250 00	–				
2	Hubbardston,	1889	638,325	9	2/10	150 00	250 00	1,500 00	July 1,	S. E. Greenwood, Templeton.	Mrs. Mary R. Chaffin, Phillipston.
	Phillipston,	1889	285,157	3	1/10	75 00	125 00				
	Royalston,	1889	499,600	6	2/10	150 00	250 00				
	Templeton,	1889	1,439,298	17	5/10	375 00	625 00				
3	Ashland,	1889	1,047,194	9	2/5	300 00	500 00	1,500 00	July 1,	Eugene L. Clark, Ashland.	Dr. George S. Thompson, Hopkinton.
	Hopkinton,	1889	1,641,245	13	3/5	450 00	750 00				
4	Easthampton,	1889	3,781,772	29	12 days.	616 17	–	1,600 00	July 1,	Dr. Frank C. Bruce, Easthampton.	Charles N. Loud, Westhampton.
	Southampton,	1889	494,574	8	5 days.	82 48	137 47				
	Westhampton,	1889	226,267	5	3 days.	51 35	85 58				
5	Barre,	1890	1,625,310	14	14/34	300 00	500 00	1,500 00	May 1,	George A. Brown, Barre.	Chas. N. Walcott (Gilbertville), Hardwick.
	Hardwick,	1890	1,650,423	15	15/34	321 43	535 72				
	Petersham,	1890	676,284	5	5/34	128 57	214 28				
6	Berlin,	1890	545,260	5	1/7	107 40	179 00	1,500 00	May 1,	Daniel W. Bemis, Shrewsbury.	Mrs. Clara L. Jones, Northborough.
	Northborough,	1890	1,327,284	9	2/7	214 20	357 00				
	Shrewsbury,	1890	1,372,986	10	2/7	214 20	357 00				
	Southborough,	1890	1,444,864	9	2/7	214 20	357 00				
7	Becket,	1890	455,313	8	3/10	181 86	302 86	1,500 00	July 1,	James H. Keefe, Chester.	Henry A. Pease, Middlefield.
	Chester,	1890	640,507	11	4/10	325 50	542 50				
	Middlefield,	1890	187,547	6	2/10	145 62	242 62				
	Washington,	1890	310,622	6	1/10	97 02	162 02				
8	Brimfield,	1890	401,273	7	3/10	225 00	375 00	1,500 00	April 30,	Robert V. Sawin, Brimfield.	Rufus S. Stebbins, Monson.
	Monson,	1890	1,698,168	23	7/10	525 00	875 00				

Union superintendencies — Continued.

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9	Princeton,	1890	$973,081	7	1/5	$150 00	$250 00	$1,500 00	July 1,	Frank T. Sweet, Westminster.	Mary A. Dupee, Westminster.
	Sterling,	1890	913,060	7	2/5	300 00	500 00				
	Westminster,	1890	720,380	11	2/5	300 00	500 00				
10	Mansfield,	1891	2,587,293	23	2	300 00	500 00	1,650 00	April 9,	Dr. Edward H. Ewing, Stoughton.	Harry R. Fisher, Mansfield.
	Sharon,	1891	2,026,622	11	1	150 00	250 00				
	Stoughton,	1891	3,298,361	21	2	300 00	500 00				
11	Dracut,	1891	2,147,021	16	4/10	300 00	500 00	2,000 00	Sept. 1,	Henry M. Billings, Tewksbury.	Ophelia S. Brown, Tyngsborough.
	North Reading,	1891	679,926	4	1/10	75 00	125 00				
	Tewksbury,	1891	1,789,125	14	4/10	300 00	500 00				
	Tyngsborough,	1891	481,955	5	1/10	75 00	125 00				
12	Brookfield,	1891	1,266,235	16	1/2	375 00	625 00	1,500 00	May 13,	Timothy Howard, North Brookfield.	A. P. Goodell, Brookfield.
	North Brookfield,	1891	1,644,388	11	1/2	375 00	625 00				
13	Grafton,	1891	2,378,034	22	3/4	562 50	937 50	1,600 00	July 1,	Francis M. McGarry, Grafton.	Appleton P. Williams, West Upton.
	Upton,	1891	1,084,405	9	1/4	187 50	312 50				
14	Millbury,	1891	2,292,305	19	60 per cent.	450 00	750 00	1,600 00	Aug. 1,	Herbert V. Chaffee, Oxford.	Thos. H. Sullivan, 311 Main Street, Worcester.
	Oxford,	1891	1,621,565	16	40 per cent.	300 00	500 00				
15	Abington,	1891	2,590,258	20	1/2	375 00	625 00	1,800 00	Aug. 1,	Wm. D. Jackson, Bridgewater.	Richard B. Rand, North Abington.
	Bridgewater,	1891	3,193,259	25	1/2	375 00	625 00				
16	Buckland,	1892	687,935	8	3/10	225 00	375 00	1,500 00	April 24,	Edwin Baker, Shelburne Falls.	Jonathan E. Davenport, Colrain.
	Colrain,	1892	619,496	14	4/10	300 00	500 00				
	Shelburne,	1892	1,011,674	10	3/10	225 00	375 00				
17	Bourne,	1892	2,673,075	11	9/20	337 50	562 50	1,500 00	July 1,	R. H. Faunce, Sandwich.	Anna M. Starbuck (Bournedale), Bourne.
	Mashpee,	1892	189,060	3	2/20	75 00	125 00				
	Sandwich,	1892	981,575	8	9/20	337 50	562 50				

18	East Bridgewater,	1892	1,677,102	14	9 days.	350 00	573 33	1,500 00	May 20,	Wm. H. Taylor East Bridgewater.	Susan B. Dunphe, East Bridgewater.
	Raynham,	1892	744,379	8	4 days.	150 00	250 00				
	West Bridgewater,	1892	1,123,222	10	7 days.	250 00	416 67				
19	Brewster,[1]	1903	553,080	4	4/26	115 38	192 30	1,625 00	July 5,	Henry H. Fisk, West Dennis.	Wm. A. Schwab, West Yarmouth.
	Dennis,	1892	1,154,490	13	13/26	375 00	625 00				
	Yarmouth,	1892	1,842,030	9	9/26	259 62	432 70				
20	Holland,[2]	1902	84,202	1	1/20	37 50	62 50	1,500 00	Aug. 1,	Dr. Charles A. De Land, Warren.	John E. Dalton, Warren.
	Wales,	1893	280,074	4	3/20	112 50	187 50				
	Warren	1893	1,762,743	15	16/20	600 00	1,000 00				
21	East Longmeadow,	1893	534,759	9	9/33	204 55	340 91	1,550 00	July 1,	Oliver Louis Wolcott, East Longmeadow.	Dr. H. G. Webber, Wilbraham.
	Longmeadow,	1893	1,215,172	5	5/33	113 64	189 40				
	Hampden,	1893	373,189	6	6/33	136 36	227 27				
	Wilbraham,	1893	1,008,771	13	13/33	295 45	492 42				
22	Dartmouth,	1893	3,241,525	23	1/2	375 00	625 00	1,500 00	Sept. 1,	Edward L. Macomber (Central Village), Westport.	David S. Wordell, South Dartmouth.
	Westport,	1893	1,645,725	19	1/2	375 00	625 00				
23	Hanover,	1894	1,391,260	10	1/3	250 00	416 67	1,700 00	May 1,	Dr. C. L. Howes, Hanover.	Mrs. Mary E. Curtis, Norwell.
	Hanson,	1894	1,272,026	8	1/3	250 00	416 66				
	Norwell,	1894	820,911	8	1/3	250 00	416 67				
24	Cheshire,	1894	695,704	7	3/10	225 00	375 00	1,500 00	April 1,	George Z. Dean, Cheshire.	Payson E. Little, Dalton.
	Dalton,	1894	3,017,700	17	7/10	525 00	875 00				
25	Provincetown,	1894	1,928,920	21	12/31	508 00	338 72	1,500 00	Sept. 7,	A. T. Williams, Provincetown.	Everett I. Nye, Wellfleet.
	Truro,[2]	1902	366,990	5	5/31	121 00	80 64				
	Wellfleet,	1894	1,086,628	5	5/31	121 00	80 64				
26	Norton,	1894	995,875	10	4/10	300 00	500 00	1,500 00	May 1,	Elbridge J. Whitaker, Wrentham.	Arthur T. Sturdy, Norton.
	Plainville,[3]	1905	701,567	8	3/10	225 00	375 00				
	Wrentham,	1894	1,029,321	8	3/10	225 00	375 00				
27	Bellingham,	1894	789,710	9	1/3	250 00	416 66	1,800 00	May 28,	Horace A. Brown, Bellingham.	Frank J. Dutcher, Hopedale.
	Hopedale,	1894	5,037,682	12	1/3	250 00	—				
	Mendon,	1894	638,020	6	1/3	250 00	416 66				
28	Chatham,[1]	1903	970,425	11	11/30	275 00	458 33	1,600 00	Oct. 1,	Erastus T. Bearse, Chatham.	George S. Hall, Orleans.
	Eastham,	1894	350,295	2	2/30	325 00	541 67				
	Harwich,	1894	1,160,162	13	13/30	100 00	166 67				
	Orleans,	1894	589,805	4	4/30	50 00	83 33				

[1] Added Oct. 17, 1903, by decree of State Board of Education.

[2] Added in 1902.

[3] A part of Wrentham; made a town in 1905.

Union superintendencies — Continued.

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29	Granby,	1895	$490,543	6	1/4	$187 50	$312 50	$1,500 00	April 1,	Francis A. Forward, Granby.	Arthur S. Gaylord, South Hadley Falls.
	South Hadley,	1895	2,529,372	24	3/4	562 50	937 50				
30	Gill,	1895	419,109	5	1/5	150 00	250 00	1,625 00	May 7,	L. R. Smith, East Northfield.	Nellie M. Wood, Northfield.
	Leyden,[1]	1901	203,421	6	1/5	150 00	250 00				
	Northfield,	1895	1,239,125	8	2/5	300 00	500 00				
	Warwick,	1895	347,390	4	1/5	150 00	250 00				
31	Bolton,	1895	487,688	4	6/28	160 71	267 86	1,600 00	July 1,	Clifford L. Russell, Harvard.	George L. Wright, Boylston (Centre).
	Boylston,	1895	451,674	4	5/28	133 93	223 21				
	Harvard,	1895	1,102,851	6	9/28	241 07	401 79				
	Shirley,	1895	929,672	7	8/28	214 29	357 14				
32	Chilmark,[2]	1897	247,619	2	2/20	75 00	125 00	1,600 00	July 1,	Ulysses E. Mayhew, West Tisbury.	Mrs. Lucinda S. St. John (Vineyard Haven), Tisbury.
	Cottage City,	1895	1,763,675	6	5/20	187 50	312 50				
	Edgartown,	1895	867,554	5	4/20	150 00	250 00				
	Gay Head,[3]	1902	35,391	1	1/20	37 50	62 50				
	Tisbury,	1895	1,313,378	6	4/20	150 00	250 00				
	West Tisbury,	1895	422,857	4	4/20	150 00	250 00				
33	Georgetown,	1895	984,905	8	2/5	300 00	500 00	1,500 00	Sept. 1,	Albert L. Wales, Groveland.	Frank E. Richardson, Rowley.
	Groveland,	1895	1,955,941	13	2/5	300 00	500 00				
	Rowley,	1895	741,915	8	1/5	150 00	250 00				
34	Carlisle,	1896	409,749	3	3/20	112 50	187 50	1,500 00	Aug. 1,	John J. Monahan, West Chelmsford.	Mrs. Martha J. Hall, Dunstable.
	Chelmsford,	1896	3,036,025	23	15/20	562 50	937 50				
	Dunstable,	1896	281,062	3	2/20	75 00	125 00				
35	Holliston,	1896	1,546,563	13	2/5	300 00	500 00	1,500 00	Sept. 1,	Rev. I. F. Porter, Sherborn.	– –
	Medway,	1896	1,358,010	12	2/5	300 00	500 00				
	Sherborn,	1896	967,710	8	1/5	150 00	250 00				
36	Acushnet,	1897	681,250	7	1/5	150 00	250 00	1,800 00	July 1,	Lemuel Le Baron Dexter, Mattapoisett.	Jos. K. Nye, Fairhaven.
	Fairhaven,	1897	2,877,780	19	3/5	450 00	750 00				
	Mattapoisett,	1897	1,584,335	7	1/5	150 00	250 00				

37	Charlemont,	1897	388,875	9	9/33	204 54	136 35	1,600 00	April 26,	Warren W. Smith, East Charlemont.	Frank B. Burrington, Heath.
	Florida,	1897	151,179	5	5/33	113 64	75 76				
	Hawley,	1897	153,589	6	8/33	136 66	90 91				
	Heath,[3]	1902	154,152	6	4/33	90 91	60 61				
	Monroe,	1897	151,819	4	4/33	90 91	60 61				
	Rowe,	1897	176,015	6	5/33	113 64	75 76				
38	Ashby,	1897	481,879	4	2/10	150 00	250 00	1,700 00	July 1,	J. W. Eastman, Townsend.	Austen T. Kempton, Lunenburg.
	Lunenburg,[4]	1905	983,283	8	3/10	225 00	375 00				
	Townsend,	1897	1,197,860	9	5/10	375 00	625 00				
39	Dover,	1898	1,004,234	6	2/10	150 00	250 00	1,500 00	Sept. 1,	F. F. Walker, South Sudbury.	Mrs. Evora A. Wotton, Dover.
	Sudbury,	1898	1,214,410	7	3/10	225 00	375 00				
	Wayland,	1898	2,016,112	13	5/10	375 00	625 00				
40	New Braintree,	1898	402,610	4	3/10	225 00	375 00	1,500 00	May 20,	George K. Tufts, New Braintree.	A. C. White, West Brookfield.
	Sturbridge,	1898	971,225	12	4/10	300 00	500 00				
	West Brookfield,	1898	848,709	7	3/10	225 00	375 00				
41	Ayer,	1898	1,701,405	11	1/2	375 00	625 00	1,650 00	July 1,	Albert W. Hinds, West Boylston.	George H. Brown, Ayer.
	West Boylston,	1898	664,942	7	1/2	375 00	625 00				
42	Acton,	1898	1,778,350	10	3/10	225 00	375 00	1,600 00	Sept. 1,	Waldo E. Conant, Littleton.	Charles J. Williams, Acton.
	Littleton,	1898	975,885	7	2/10	150 00	250 00				
	Westford,	1898	1,633,154	16	5/10	375 00	625 00				
43	Medfield,	1899	1,535,150	7	2/5	300 00	500 00	1,500 00	April 1,	J. Edward Plimpton, Norwood.	Rev. Chas. H. Williams, Medfield.
	Walpole,	1899	3,686,280	20	3/5	450 00	750 00				
44	Freetown,	1900	822,005	8	1/3	250 00	416 67	1,500 00	May 1,	Job Gardner, South Swansea.	Mrs. Carolin B. Gardner, Swansea Centre.
	Somerset,[3]	1902	1,146,800	11	1/3	250 00	416 66				
	Swansea,	1900	1,146,208	12	1/3	250 00	416 67				
45	Marion,	1900	1,577,720	6	2/5	300 00	500 00	1,500 00	June 1,	John Huxtable, Wareham.	A. C. Vose, Marion.
	Wareham,	1900	3,402,554	21	3/5	450 00	750 00				
46	Holden	1900	1,416,369	16	10/20	375 00	625 00	1,600 00	Aug. 1,	Jesse Allen, Oakham,	Addie M. Holden, Holden.
	Oakham,	1900	350,137	5	3/20	112 50	187 50				
	Paxton,	1900	358,077	3	2/20	75 00	125 00				
	Rutland,	1900	716,530	7	5/20	187 50	312 50				

[1] Added in 1901.
[2] Added in 1897.
[3] Added in 1902.
[4] Added May 16, 1905, by decree of State Board of Education.

Union superintendencies — Continued.

Number.	UNIONS.	When formed.	Valuation May 1, 1905.	No. of schools, 1904-1905.	Each town's share of superintendent's — Service.	Salary.	State aid to each town.	Superintendent's salary.	When union superintendency year begins.	Joint committee. Chairman.	Secretary.
47	Ashfield,	1900	$588,280	11	19/24	$312 50	$520 83	$1,500 00	Sept. 1,	Dr. J. E. Urquhart, Ashfield.	George B. Church, Shelburne Falls.
	Cummington,	1900	312,016	8	6/24	187 50	312 50				
	Goshen,	1900	159,074	4	3/24	93 75	156 25				
	Plainfield,	1900	178,911	5	5/24	156 25	260 42				
48	Bedford,	1900	1,233,550	4	5/20	187 50	312 50	1,800 00	June 1,	Robert H. Gowing, Wilmington.	Elihu G. Loomis, Bedford.
	Burlington,	1900	583,461	3	3/20	112 50	187 50				
	Lincoln,	1900	2,506,719	5	5/20	187 50	312 50				
	Wilmington,	1900	1,223,302	12	7/20	262 50	437 50				
49	Lynnfield,	1900	718,707	4	1/10	75 00	125 00	1,800 00	Aug. 1,	J. Winslow Perkins, Lynnfield Centre.	Chas. E. Montague, Wakefield.
	Wakefield,	1900	8,291,289	49	9/10	–	–				
50	Amherst,	1901	3,599,900	18	4/5	600 00	–	1,800 00	April 1,	John L. Brewer, Pelham.	Albion B. Allen, Amherst.
	Pelham,	1901	197,798	4	1/5	150 00	250 00				
51	Bernardston,	1901	421,438	6	6/25	180 00	300 00	1,500 00	April 15,	Henry S. Hubbard, Hatfield.	Rev. Fred S. Smith, Bernardston.
	Hadley,	1901	1,141,126	11	11/25	330 00	550 00				
	Hatfield,	1901	1,394,191	8	8/25	240 00	400 00				
52	Blandford,	1901	426,600	7	7/29	181 03	120 69	1,500 00	July 1,	A. G. Wightman, Huntington.	A. H. Nye, Russell.
	Huntington,	1901	566,825	11	11/29	284 49	189 65				
	Montgomery,	1901	143,336	5	4/29	103 45	68 97				
	Russell,	1901	613,734	7	7/29	181 03	120 69				
53	Avon,	1901	903,658	8	4/15	200 00	233 33	1,500 00	July 1,	Zenas A. French, Holbrook.	Charles S. Ludden, Brookville.
	Holbrook,	1901	1,280,553	12	5/15	250 00	416 67				
	Randolph,	1901	2,012,475	16	6/15	300 00	500 00				
54	Douglas,	1901	1,175,011	11	2/5	300 00	500 00	1,650 00	Sept. 1,	Leander S. Aldrich, Uxbridge.	Augustus C. Seagrave, Uxbridge.
	Uxbridge,	1901	2,534,965	23	3/5	450 00	750 00				
55	Erving,	1901	718,250	7	7/19	276 32	460 53	1,500 00	Aug. 1,	Arthur H. Gordon, Erving.	Mrs. J. C. Richards, Erving.
	Leverett,	1901	302,447	4	4/19	157 89	263 15				
	Shutesbury,	1901	213,839	3	3/19	118 42	197 37				
	Wendell,	1901	242,559	5	5/19	197 37	328 95				

56	Lee,	1901	1,918,865	14	$12/25$	360 00	600 00	1,500 00	Sept. 1,	D. M. Wilcox, Lee,	J. J. Hassett, Lee.
	Monterey,	1901	271,085	5	$5/25$	150 00	250 00				
	Otis,	1901	220,979	7	$5/25$	150 00	250 00				
	Tyringham,	1901	241,373	3	$3/25$	90 00	150 00				
57	Hinsdale,	1901	591,257	10	$3\frac{5}{8}$ days.	258 62	431 04	1,500 00	May 7,	Wm. W. Pascoe Savoy.	Thos. F. Barker, Hinsdale.
	Peru,	1901	121,548	5	$1\frac{7}{8}$ days.	129 31	215 51				
	Savoy,	1901	172,740	7	$2\frac{5}{8}$ days.	181 03	301 72				
	Windsor,	1901	243,970	7	$2\frac{5}{8}$ days.	181 04	301 73				
58	Halifax,	1901	326,186	5	$2/15$	100 00	166 67	1,500 00	July 1,	John M. Monroe (Bryantville), Pembroke.	John W. Cobb, Kingston.
	Kingston,	1901	1,458,678	12	$6/15$	300 00	500 00				
	Pembroke,	1901	963,425	7	$5/15$	250 00	416 66				
	Plympton,	1901	332,160	3	$2/15$	100 00	166 67				
59	Clarksburg,	1902	255,569	6	$6/18$	250 00	416 67	1,500 00	Sept. 1,	Daniel Shepardson, Hancock.	F. C. Downing, Lanesborough.
	Hancock,	1902	283,257	6	$6/18$	250 00	416 67				
	Lanesborough,	1902	475,569	5	$5/18$	208 33	347 21				
	New Ashford,	1902	53,390	1	$1/18$	41 67	69 45				
60	Dana,	1902	353,402	5	$5/21$	178 57	297 62	1,500 00	July 1,	Willard Putnam (Cooleyville), New Salem.	Mrs. Nellie M. Brown, Dana.
	Greenwich,	1902	268,015	3	$3/21$	107 14	178 56				
	New Salem,	1902	314,220	7	$8/21$	285 72	476 20				
	Prescott,	1902	171,837	5	$5/21$	178 57	297 62				
61	Auburn,	1902	985,000	10	$2/5$	270 00	450 00	1,500 00	July 1,	Samuel C. Hodgkiss, Sutton.	W. T. Duvall, Auburn.
	Sutton,	1902	1,259,537	18	$3/5$	480 00	800 00				
62	Essex,	1902	1,056,153	9	$2/5$	300 00	500 00	1,500 00	July 1,	George K. Knowlton, Hamilton.	Everett A. Smith, Hamilton.
	Hamilton,	1902	2,924,030	8	$1/5$	150 00	250 00				
	Middleton,[1]	1905	717,433	3	$1/5$	150 00	250 00				
	Wenham,	1902	2,054,850	5	$1/5$	150 00	250 00				
63	Carver,	1902	1,593,165	10	$4/10$	300 00	500 00	1,500 00	May 1,	F. W. J. Gerrish, North Rochester.	Chester B. Morse, Rochester.
	Lakeville,	1902	625,496	6	$3/10$	225 00	375 00				
	Rochester,	1902	558,750	6	$3/10$	225 00	375 00				
64	Millis,	1902	718,945	7	$1/3$	250 00	416 67	1,500 00	Sept. 1,	Evan F. Richardson, Millis.	Edward W. Mann, Norfolk.
	Norfolk,	1902	708,526	5	$1/3$	250 00	416 67				
	Westwood,	1902	2,294,908	6	$1/3$	250 00	416 66				
65	Mt. Washington,	1902	88,101	2	$6/50$	75 00	125 00	1,500 00	July 1,	Herbert W. Weaver, Mt. Washington.	Lura A. Doncaster (Hartsville), New Marlborough.
	New Marlborough,	1902	574,905	10	$20/50$	285 00	475 00				
	Sheffield,	1902	938,740	13	$24/50$	390 00	650 00				

[1] Added May 16, 1905, by decree of State Board of Education.

Union superintendencies — Concluded.

Number.	UNIONS.	When formed.	Valuation May 1, 1905.	No. of schools, 1904-1905.	Each town's share of superintendent's — Service.	Each town's share of superintendent's — Salary.	State aid to each town.	Superintendent's salary.	When union superintendency year begins.	Joint committee. Chairman.	Joint committee. Secretary.
66	Chesterfield,	1902	$297,577	7	1/4	$187 50	$312 50	$1,500 00	Sept. 1,	Wm. H. Baker, Chesterfield.	Emil H. Miller, Williamsburg.
	Williamsburg,	1902	906,605	15	2/4	375 00	625 00				
	Worthington,	1902	313,879	8	1/4	187 50	312 50				
67	Alford,	1902	157,770	2	3/22	102 27	170 45	1,500 00	July 1,	J. B. Briggs (Egremont), Gt. Barrington, R. F. D. No. 3.	Chas. H. Dorr, Pittsfield.
	Egremont,	1902	449,612	4	4/22	136 36	227 28				
	Richmond,	1902	336,752	6	7/22	238 64	397 73				
	West Stockbridge,	1902	381,002	7	8/22	272 73	454 54				
68	Berkley,	1902	416,255	7	1/20	150 00	250 00	1,500 00	July 1,	Andrew W. Turner, Dighton.	Helen R. Strange (Assonet), Freetown.
	Dighton,	1902	897,916	12	7/20	262 50	437 50				
	Rehoboth,	1902	780,452	15	9/20	337 50	562 50				
69	Charlton,	1902	1,258,355	14	1/2	375 00	625 00	1,600 00	Sept. 1,	Jonas Bemis, Charlton Depot.	M. E. Hanley, Leicester.
	Leicester,	1902	2,137,990	22	1/2	375 00	625 00				
70	Boxborough,	1902	244,805	4	2/10	150 00	250 00	1,500 00	Sept. 1,	C. E. Bradford, West Acton.	Rowland P. Harriman, Maynard.
	Maynard,	1902	3,558,233	18	5/10	375 00	625 00				
	Stow,	1902	826,747	6	3/10	225 00	375 00				
71	Conway,	1903	672,084	12	6.4 days.	239 63	399 38	1,500 00	June 1,	C. G. Trow, Sunderland.	Edward A. Rice, South Deerfield.
	Deerfield,	1903	1,476,560	13	7.6 days.	283 88	473 13				
	Sunderland,	1903	462,608	4	3.3 days.	124 87	208 12				
	Whately,	1903	430,545	6	2.7 days.	101 62	169 37				
72	Agawam,	1903	1,762,790	15	3/7	321 43	535 72	1,600 00	July 1,	Edward E. Chapman, Ludlow.	Fred A. Worthington, Agawam.
	Ludlow,	1903	2,667,243	20	4/7	428 57	714 28				
73	Granville,	1903	402,916	9	3/10	225 00	375 00	1,500 00	July 1,	B. M. Hastings, Southwick.	Mrs. Emma L. Stow, Granville.
	Sandisfield,	1903	306,690	7	2/10	150 00	250 00				
	Southwick,	1903	588,490	10	3/10	225 00	375 00				
	Tolland,	1903	171,314	2	2/10	150 00	250 00				

74	Dudley,	1903	1,412,250	15	1/3	250 00	416 67	2,000 00	Aug. 1,	Spaulding Bartlett, Webster.	R. A. Dunning, Webster.
	Webster,	1903	6,032,924	20	2/3	500 00	–				
75	Billerica,	1904	2,226,175	16	1/2	375 00	625 00	1,500 00	Sept. 1,	Fred A. Casey, Billerica.	Edgar W. Blake, East Pepperell.
	Pepperell,	1904	2,216,550	18	1/2	375 00	625 00				
76	Belchertown,	1904	872,150	19	18/25	540 00	900 00	1,500 00	Sept. 1,	William B. Kimball, Enfield.	George H. B. Green, Belchertown.
	Enfield,	1904	701,810	7	7/25	210 00	350 00				
77	Boxford,	1905	1,091,737	7	1/5	150 00	250 00	1,500 00 [1]	July 1,	Chas. O. Bailey, Byfield.	Parker H. Nason, West Newbury.
	Newbury,	1905	1,225,767	6	1/5	125 00	208 33				
	Salisbury,	1905	847,445	8	1/5	125 00	208 33				
	West Newbury,	1905	1,047,766	10	2/5	300 00	500 00				
78	Foxborough,	1905	2,114,130	16	3/5	450 00	750 00	1,500 00	July 1,	Prof. John F. Greene, Seekonk.	Mrs. Addie Jewett, Bemis, Foxborough.
	Seekonk,	1905	1,071,400	9	2/5	300 00	500 00				
79 [2]	Ashburnham,	1905	922,460	13	1/3	250 00	416 67	1,700 00	May 16,	Frank B. Spalter, Winchendon.	Dr. E. G. Fosgate, Ashburnham.
	Winchendon,	1905	3,009,775	25	2/3	500 00	833 33				
80	Merrimac, [3]	1906	1,204,832	11	1.5 days.	225 00	375 00	1,700 00	Sept. 1,	Walter S. Parker, Reading.	Alphonso T. Merrill, Topsfield.
	Reading,	1901	4,683,592	23	2.5 days.	375 00	–				
	Topsfield,	1901	1,015,930	4	1.0 days.	150 00	250 00				

[1] For ten months only. [2] Union No. 79 formed May 16, 1905, by decree of State Board of Education. [3] Added in 1906.

Note. — Of the foregoing unions, those numbered 27, 32, 50, 63 and 64 were authorized by special acts of the Legislature.

The School and the Home.

After seventy years of effort to promote the educational interests of the Commonwealth, the problems confronting the Board of Education are more numerous and complex than those which engaged its attention during its earliest years. With the attainment of each new view point the horizon has receded. New social conditions are demanding new adjustments. To instruct and train a modern child for and by means of modern life is a social problem as well as a school problem, and to do it successfully will need the co-operation of all social forces. When the schools have done all that they can do, the work will be incomplete and unsatisfactory unless the home can be rehabilitated as a means of education.

It is encouraging to note that increasing efforts are being made, through the formation of parents' associations, to bring the schools and the homes together for the study of common problems and for mutual co-operation in child training. This should result in a more appreciative attitude on the part of parents and in more sympathetic relations between teachers and their pupils. Out of the improved conditions should come better teachers with better pay, and a generation of children better fitted for life.

Respectfully submitted,

GEORGE H. MARTIN,
Secretary.

FINANCIAL STATEMENTS.

THE MASSACHUSETTS SCHOOL FUND.

The following statement shows the condition of the Massachusetts school fund : —

Amount of fund Jan. 1, 1906,		$4,880,110 66
Increase of fund during the year, under the provisions of chapter 90, Resolves of 1894,		100,000 00
Amount of fund Dec. 31, 1906,		$4,980,110 66
Gross income for 1906 (eleven months),		$227,470 35
Paid for accrued interest on securities purchased,	$2,344 74	
Paid town of Whately,	657 30	
		3,002 04
Net income,		$224,468 31

The following table shows the amount of the principal of the Massachusetts school fund at the close of business, December 31, from 1893 to 1906, both inclusive, and the annual income for same term, as shown by the books of the Treasurer and Receiver-General : —

Year.	Principal.	Income.
1893,	$3,670,548 14	$167,258 23
1894,	3,770,548 14	167,210 54
1895,	3,870,548 14	172,729 65
1896,	3,970,548 14	175,165 64
1897,	4,070,548 14	189,808 71
1898,	4,170,548 14	204,612 61
1899,	4,270,548 14	208,462 61
1900,	4,370,548 14	213,066 18
1901,	4,470,548 14	366,656 51
1902,	4,570,548 14	220,731 77
1903,	4,670,548 14	197,379 93
1904,	4,780,110 66	211,325 58
1905,	4,880,110 66	219,379 32
1906 (eleven months),	4,980,110 66	224,468 31

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

Appropriations for Support of Normal Schools.

Dr.				Cr.			
1906.	Expended for Bridgewater Normal School,	$45,013 57		1906.	Appropriations (chapter 132, Acts of 1906),	$292,360 03	
	Expended for Fitchburg Normal School,	38,617 68			Received from the city of Fitchburg,	11,412 68	
	Expended for Framingham Normal School,	31,125 37					
	Expended for Hyannis Normal School,	21,753 75					
	Expended for Lowell Normal School,	28,740 00					
	Expended for North Adams Normal School,	29,191 41					
	Expended for Salem Normal School,	28,270 96					
	Expended for Westfield Normal School,	28,325 89					
	Expended for Worcester Normal School,	23,496 05					
	Expended for Normal Art School,	29,037 32					
		$303,572 00					
	Balance unexpended,	200 71					
			$303,772 71				$303,772 71
	Bridgewater Normal School: —				Appropriation (chapter 132, Acts of 1906),		$45,013 86
	Salaries,	$24,513 66					
	Model school,	7,001 67					
	Wages and labor,	4,445 83					
	Buildings and grounds,	6,734 65					

School supplies,	1,982 77				
Miscellaneous,	334 99				
Balance unexpended,	29				
		$45,013 86			$45,013 86
Fitchburg Normal School: —					
Salaries,	$11,803 70		Appropriation (chapter 132, Acts of 1906),		$27,348 00
Model school,	15,049 86		Received from city of Fitchburg,		11,412 68
Wages and labor,	3,896 18				
Buildings and grounds,	5,215 86				
School supplies,	1,770 93				
Lectures,	460 00				
Miscellaneous,	421 15				
Balance unexpended,	143 00				
		$38,760 68			$38,760 68
Framingham Normal School: —					
Salaries,	$14,872 55		Appropriation (chapter 132, Acts of 1906),		$31,125 85
Model school,	4,354 23				
Wages and labor,	4,232 06				
Buildings and grounds,	6,386 08				
School supplies,	900 12				
Lectures,	50 00				
Miscellaneous,	330 33				
Balance unexpended,	48				
		$31,125 85			$31,125 85
Hyannis Normal School: —					
Salaries,	$8,871 45		Appropriation (chapter 132, Acts of 1906),		$21,554 00
Model school,	2,711 91				
Amount carried forward,	$11,583 36		*Amount carried forward,*		$21,554 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR. APPROPRIATIONS FOR SUPPORT OF NORMAL SCHOOLS — *Continued.* CR.

1906.				1906.		
	Amount brought forward, . .	$11,583 36			*Amount brought forward,* . .	$21,554 00
	Hyannis Normal School — *Con.*					
	Wages and labor, . . .	1,729 51			Appropriation (chapter 307, Acts of	
	Buildings and grounds, . .	4,657 13			1906), ...	200 00
	School supplies, ...	1,015 83				
	Lectures, etc., ...	89 07				
	Miscellaneous (including summer school), ...	2,678 85				
	Balance unexpended, . . .	25				
			$21,754 00			$21,754 00
	Lowell Normal School: —					
	Salaries, ...	$14,095 57			Appropriation (chapter 132, Acts of	
	Model school, ...	5,703 50			1906), ...	$28,740 00
	Wages and labor, . . .	2,586 90				
	Buildings and grounds, . .	3,594 80				
	School supplies, ...	2,135 90				
	Lectures, ...	366 40				
	Miscellaneous, ...	256 93				
			$28,740 00			$28,740 00
	North Adams Normal School: —					
	Salaries, ...	$14,336 69			Appropriation (chapter 132, Acts of	
	Model school, ...	3,887 07			1906), ...	$29,193 89
	Wages and labor, . . .	2,799 70				
	Buildings and grounds, . .	6,502 41				
	School supplies, ...	1,200 96				
	Lectures, ...	79 50				

Miscellaneous,	386 32			
Balance unexpended,	1 24			
		$29,193 89		$29,193 89
Salem Normal School: —				
Salaries,	$17,808 35		Appropriation (chapter 132, Acts of 1906),	$28,277 02
Model school,	2,760 90			
Wages and labor,	2,652 72			
Buildings and grounds,	2,506 64			
School supplies,	2,110 87			
Lectures,	177 50			
Miscellaneous,	253 25			
Balance unexpended,	6 79			
		$28,277 02		$28,277 02
Westfield Normal School: —				
Salaries,	$11,183 34		Appropriation (chapter 132, Acts of 1906),	$28,325 89
Model school,	5,344 17			
Wages and labor,	3,372 68			
Buildings and grounds,	5,697 74			
School supplies,	2,156 00			
Lectures, etc.,	274 68			
Miscellaneous,	297 28			
		$28,325 89		$28,325 89
Worcester Normal School: —				
Salaries,	$14,391 19		Appropriation (chapter 132, Acts of 1906),	$23,496 70
Model school,	2,199 89			
Wages and labor,	1,232 17			
Buildings and grounds,	3,189 63			
School supplies,	2,016 48			
Lectures, etc.,	54 45			
Miscellaneous,	412 24			
Balance unexpended,	65			
		$23,496 70		$23,496 70

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR. APPROPRIATIONS FOR SUPPORT OF NORMAL SCHOOLS — *Concluded.* CR.

1906.	Normal Art School: —			1906.		
	Salaries,	$22,742 07			Appropriation (chapter 132, Acts of 1906),	$29,084 82
	Wages and labor,	2,316 82				
	Buildings and grounds,	2,767 87				
	School supplies,	313 49				
	Lectures, etc.,	525 00				
	Miscellaneous,	372 07				
	Balance unexpended,	47 50				
			$29,084 82			$29,084 82

SALARIES.

1906.	George H Martin, secretary,	$4,125 00		1906.		
	John T. Prince, agent,	2,291 67			Appropriation (chapter 132, Acts of 1906),	$15,583 33
	G. T. Fletcher, agent,	2,291 67				
	J. W. MacDonald, agent,	2,291 66				
	Walter Sargent, agent,	2,291 66				
	A. C. Blake, chief clerk,	916 67				
	E. E. Elwell, clerk,	770 00				
	George H. Varney,	549 97				
	Balance unexpended,	55 03				
			$15,583 33			$15,583 33

Appropriation for Travelling Expenses of Agents.

1906.				1906.		
	Paid: —				Appropriation (chapter 132, Acts of 1906),	$1,833 33
	John T. Prince,	$307 93				
	J. W. MacDonald,	412 81				
	G. T. Fletcher,	137 88				
	Walter Sargent,	412 70				
	Balance unexpended,	562 01				
			$1,833 33			$1,833 33

Appropriation for Aid to Normal Pupils.

1906.				1906.		
	Amounts paid: —				Appropriation (chapter 132, Acts of 1906),	$4,000 00
	Bridgewater Normal School,	$558 14				
	Fitchburg Normal School,	124 03				
	Framingham Normal School,	294 57				
	Hyannis Normal School,	217 06				
	Lowell Normal School,	46 51				
	North Adams Normal School,	170 54				
	Salem Normal School,	31 01				
	Westfield Normal School,	480 62				
	Worcester Normal School,	77 52				
	Balance unexpended,	2,000 00				
			$4,000 00			$4,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

APPROPRIATION FOR INCIDENTAL EXPENSES.

DR.				CR.		
1906.	Amounts paid for: —			1906.	Appropriation (chapter 132, Acts of 1906),	$1,833 33
	Expressage,	$300 57				
	Printing,	386 85				
	Postage,	237 86				
	Stationery,	146 77				
	Typewriter,	72 25				
	Binding,	45 63				
	Books, periodicals, etc.,	46 15				
	Advertising,	37 50				
	Newspaper clippings,	27 90				
	Telephones,	16 75				
	Balance unexpended,	515 10				
			$1,833 33			$1,833 33

APPROPRIATION FOR EXPENSES OF MEMBERS OF THE BOARD.

1906.	Amounts paid: —			1906.	Appropriation (chapter 132, Acts of 1906),	$916 66
Feb. 2,	Joel D. Miller,	$13 97				
26,	C. Q. Richmond,	31 32				
June 2,	A. E. Winship,	7 00				
15,	A. C. Boyden, visits to normal schools,	207 00				
26,	Kate Gannett Wells,	45 65				
Oct. 5,	J. D. Miller,	40 10				
17,	G. I. Aldrich,	67 87				

Nov. 27,	C. Q. Richmond,	54 97				
28,	Kate Gannett Wells,	30 91				
Dec. 14,	Ella Lyman Cabot,	5 81				
	Balance unexpended,	412 06				
			$916 66			$916 66

APPROPRIATION FOR TEACHERS' INSTITUTES.

1906.	Paid for instructors and expenses of institutes at Amherst, Athol, Ayer, Barre, Danvers, Gloucester, Hyannis, Hyde Park, Montague, Newburyport, North Adams, North Attleborough, Palmer, Rockland, Shelburne Falls, Somerset, Southbridge, Westborough and Westfield,	$1,729 89		1906.	Appropriation (chapter 132, Acts of 1906),	$2,000 00
	Balance unexpended,	270 11				
			$2,000 00			$2,000 00

APPROPRIATION FOR REGISTERS AND BLANKS.

1906.	Paid for 11,800 school registers,	$650 05		1906.	Appropriation (chapter 132, Acts of 1906),	$1,200 00
	for school return blanks,	87 33				
	for census blanks,	238 31				
	for expressage,	98 50				
	Balance unexpended,	125 81				
			$1,200 00			$1,200 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

DR. APPROPRIATION FOR EDUCATION OF ADULT BLIND. CR.

1906.				1906.		
	Expended for teachers and their travelling expenses,	$3,647 71			Appropriation (chapter 132, Acts of 1906),	$4,583 34
	Balance unexpended,	935 63				
			$4,583 34			$4,583 34

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN.

1906.				1906.		
	Amounts paid as follows: —				Appropriation (chapter 132, Acts of 1906),	$79,750 00
May 27,	Boston School for the Deaf: 84 pupils, half year ending Jan. 31, 1906,	$10,166 66			Deficiency,	10,316 45
Mar. 7,	American School for the Deaf: 50 pupils, quarter ending Feb. 28, 1906,	3,125 00				
9,	Clarke School for the Deaf: 111 pupils, quarter ending March 31, 1906,	8,184 83				
12,	Sarah Fuller Home: 10 pupils, quarter ending Jan. 1, 1906,	572 19				
Apr. 2,	Horace Mann School: 151 pupils, Feb. 1 to July 1, 1906,	9,287 17				
	Transportation, Nov. 15, 1905, to Feb. 15, 1906,	1,065 39				

7,	Sarah Fuller Home: 10 pupils, quarter ending March 31, 1906,	625 00			
9,	Clarke School: 110 pupils, quarter ending June 30, 1906,	7,981 26			
23,	Sarah Fuller Home: Classes in defective speech,	62 00			
June 12,	Boston School: 87 pupils to June 20, 1906,	10,583 36			
13,	Horace Mann School: Transportation to May 15, 1906,	1,063 41			
July 14,	Clarke School: 112 pupils, quarter ending Sept. 30, 1906,	8,055 72			
17,	Sarah Fuller Home: 12 pupils, quarter ending July 1, 1906,	709 39			
18,	American School: Clothing to July 1, 1906,	318 55			
Aug. 20,	American School: 49 pupils, quarter ending May 31, 1906,	3,062 50			
Oct. 11,	Sarah Fuller Home: 13 pupils, quarter ending Sept. 30, 1906,	568 35			
	Horace Mann School: 140 pupils, Sept. 1, 1906, to Feb. 1, 1907,	8,448 17			
	Amount carried forward,	$73,878 95		*Amount carried forward,*	$90,066 45

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONCLUDED.

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN — *Concluded.*

DR.

1906.			
	Amount brought forward, . .	$73,878 95	
Oct. 18,	American School: 52 pupils, quarter ending Sept. 1, 1906, ...	3,250 00	
Nov. 8,	Perkins Institution: Cora Crocker, deaf, dumb and blind, Oct. 1, 1905, to Sept. 30, 1906, ...	700 00	
	Nellie Winitzky, deaf, dumb and blind, Oct. 1, 1905, to Sept. 30, 1906, . . .	700 00	
13,	Clarke School: 108 pupils, quarter ending Dec. 31, 1906, ...	8,100 00	
Dec. 21,	American School: 53 pupils, quarter ending Jan. 31, 1907, ...	3,437 50	
			$90,066 45

CR.

1906.		
	Amount brought forward, . .	$90,066 45
		$90,066 45

C. B. TILLINGHAST, *Treasurer.*

APPENDICES.

Appendix A.

REPORT OF JOHN T. PRINCE,

AGENT OF THE BOARD.

Superintendents of Schools, Consolidation of Schools, School Revenues, School Delinquents and their Treatment, including Statistics relating to County Truant Schools.

REPORT.

To the Board of Education.

My duties during the past year have been, in the main, along the following lines: (1) inspecting schools and the work of superintendents, chiefly in the union supervisory districts; (2) organizing teachers' institutes, and taking part in them and in other educational meetings; (3) visiting rural towns for the purpose of adjusting differences between the people and the school authorities, mainly on account of the consolidation of schools and the conveyance of pupils; and (4) visiting the special schools that are supported wholly or partly by the State, including truant schools, reformatories, and schools for deaf-mutes, for the blind and for the feeble-minded.

The Work of Union Superintendents.

The present plan of skilled supervision for the schools of the smaller or poorer towns was begun eighteen years ago, and five years ago it was made universal and compulsory. Sufficient opportunity has thus been afforded to fully test its usefulness as a means of improving the schools of the country towns. That there has been little or no improvement of the schools under this system in a few places must be admitted; but that in a large majority of the towns the schools have made within the past few years a marked improvement which can be attributed directly to improved supervision is beyond question.

The conditions favorable to the greatest success of the schools in a union district are: (1) the employment of an active and thoroughly competent superintendent; (2) the employment of well-trained teachers; and (3) the cordial support of the superintendent by the school committee and the people. When these conditions exist, the success of the schools is assured.

The Efficiency of Superintendents. — The likelihood of securing the first of the favorable conditions named above is promoted by a provision of the law that no one can be elected to the position of union superintendent who does not hold

a certificate of fitness and competency from the State Board. One means employed by the Board of determining the fitness of persons for the position of superintendent is an examination of candidates, which takes into account not only what they know of the theory of school management and supervision, but also what they have done as teachers and supervisors. In addition to all this, the successful candidates are subjected to the further and far more difficult test of an inspection of their work by the secretary or the agents of the State Board before a three or five years' certificate is given.

Three examinations of candidates for the superintendency have been held, and, out of 101 persons examined, only 44 have received certificates. If the high standard of certification which such examinations show is maintained, and if the inspection and reports of agents of the Board respecting the actual work done in the schools are at all what they should be, it would seem that all needed precautions are taken to secure the most competent persons for the work.

While it is true, as has been said, that a few of the union superintendents in present service are not accomplishing what we had a right to expect from them, it may be said truly that the great body of them are doing well. Their efficiency I have realized as I have compared the schools as they are to-day with the same schools as they were a dozen or fifteen years ago. The activity and interest of these superintendents are shown by the improved courses of study which they make, by the syllabuses of plans and suggestions which they send to the teachers, by the local teachers' meetings which they hold, and by the discriminating help and support which they give to individual teachers.

The interest of this body of superintendents in their work is also shown by the frequent and regular conferences which they hold among themselves. In nearly all parts of the State groups of from six to thirty superintendents meet regularly as often as once a month, for the purpose of discussing the practical questions connected with their work. The practical character of these discussions is shown by the following subjects, which have recently been under consideration by one of the groups: (1) reading; (2) the qualifications of a good teacher; (3)

criticisms I have made to my teachers. These meetings were held once a month on Saturday, and were attended by about six superintendents.

Another and larger group of superintendents have discussed the following subjects: (1) industrial education (two meetings); (2) moral culture in the school; (3) the financial side of school administration; (4) experiences with class and individual teaching; (5) relations of the superintendent and committee. The plan of this group is sometimes to have a speaker from abroad, and at other times to have a free expression of opinion among themselves.

Another evidence of the superintendent's efficiency and interest is the holding regularly of local teachers' meetings. This is a difficult matter in country towns, in which the distance for teachers to go to a meeting is often three or four miles. In most of the superintendency districts several meetings of teachers were held during the past year, some of them being intended for all the teachers of the district, and some for the teachers of a single town. One superintendent who brings all the teachers of his district together several times a year writes as follows: —

Last year I held in all five (union) teachers' meetings, and have held two thus far this year. Another will be held within two weeks.

The meetings were opened by criticisms and suggestions from the superintendent, occupying perhaps forty-five minutes. This was followed by questions and discussions on statements and suggestions made. The subjects discussed in the last two meetings were: methods in reading; methods in spelling; methods in writing; question method and topical method; art of questioning; incentives, artificial and natural; recent legislation; professional teaching; suggestions in history and geography.

This was followed by papers from teachers upon the following subjects: criticism of the Ward system of reading; how to keep children busy when not reciting; manners and morals; saving time.

Work done in the different schools was on exhibition.

Another superintendent, who holds meetings in each town of his district, gives the following brief account of them: —

I hold five meetings during the year in each town, — two in the fall and spring term and one in the winter term. The same topic is taken up in all the towns. Our teachers are so scattered that I have not

thought it wise to hold more frequent meetings. Occasional group meetings are also held, for discussion of work in particular grades.

I intend to have some study of topics precede the meetings. I usually have a mimeograph outline to direct the study, and teachers prepare notes of the meetings for my inspection. Subjects of vital practical importance are chosen. I have not thought it wise to do anything with subjects not vitally related to every-day schoolroom work. It is intended to make the meetings real conferences, though I try to impress my ideas so that they may be embodied in practice.

With this report of local meetings were sent samples of mimeograph outlines referred to. They were upon practical lines of school work, each outline covering several pages.

It is in such ways as these that the superintendent shows an intelligent interest in his work, but the fullest test of his efficiency and ability to improve the schools lies in what he is able to see and do in the schools themselves. If, as is sometimes the case, the superintendent simply visits the schools in a purposeless way, taking no note of either the strong or weak points which he sees or ought to see, and bringing neither help nor support to the teachers in their work, the schools are not likely to be improved by anything he does in the way of planning work or giving directions.

It is true that in this work of inspection and assistance the superintendent may be misunderstood even by the teachers themselves. The keenest observers are frequently not those who talk most freely of what they see, and the wisest judgments are not always those which find most frequent expression. The way, too, of one superintendent in observing and helping cannot be the way of another, even though they are equally wise. It is for this reason, and because a mistaken decision in regard to a superintendent's ability may work an irreparable injury to him, that the greatest care should be taken in passing judgment upon his work, and that the testimony of one person or even of two persons should not be regarded as final in case the judgment is unfavorable. Of all the varied duties of an agent of the Board, there is none more delicate and trying than that of ascertaining and reporting upon the work of a superintendent who is in a certain sense on probation. The duty is all the more trying, when, as is sometimes the case, the superintendent is in every way worthy except in the professional details of his work.

Teachers. — One direct result of the new plan of supervision in country towns is the improved character of the teaching force. There are at present many towns of the superintendency unions in which a majority of the teachers are graduates of a State normal school. Twenty years ago these same towns were employing only untrained teachers, and frequently teachers who had not any education beyond the schools in which they were teaching.

Graduates of colleges also are found as teachers of elementary schools in greater numbers than formerly. These changes are quite as great in the poorer and more sparsely settled communities as in the larger and richer towns.

It is true that the increased grant from the State has enabled the towns to pay higher salaries, and so to employ a higher grade of teachers than formerly; but the increased disposition to do so has been brought about largely, I believe, through the efforts or advice of the superintendents.

Co-operation and Support. — The third condition named as essential to the greatest success of the schools in a supervisory union is the support of the superintendent by the school committee and people. When the highest welfare of the schools is so clearly seen to depend upon the cordial co-operation of all concerned, it is most amazing to find in some places not only that there is lack of co-operation with the superintendent on the part of the school committee and people, but that in some cases the superintendent is not even permitted to perform those duties for which skilled supervision was primarily established. One union superintendent tells me that in one of his towns he has absolutely nothing to say in the choice of teachers, and that in another town he is not permitted to close the schools for an afternoon, to permit the teachers to attend a teachers' meeting. Another superintendent says that, at a recent election of school committee in one of the towns, one of the issues made was the enforcement or non-enforcement of the school attendance law, and that the man finally won who promised to oppose the superintendent in his efforts to comply with the law.

Happily there are few of such instances of a complete violation of the spirit of the law establishing skilled supervision; but there are enough instances of that kind to raise the ques-

tion whether the schools or children in any part of the Commonwealth should be permitted to suffer from the mistakes either of the school committee or of the people. The most immediate and apparent correction of the difficulty would be to give by law to the superintendent certain powers and duties, for the performance of which he would be held responsible.

Consolidation of Schools.

An unusual number of complaints have recently been made in relation to the consolidation of schools and the conveyance of pupils. This does not mean that consolidation is less in favor now than formerly, but that the plan of consolidation in some towns has been carried so far as to make its further extension a question. When a school is reduced to four or five pupils, and the distance to another school is not very great, there is generally little fault found with the school committee for closing the smaller school, especially if the children are provided with conveyance the entire distance from the home to the school; but if the conveyance offered is but a portion of the way, and the distance to be walked is half a mile or more, or if the distance for riding is very great, there is thought to be hardship, and complaint is made. Sometimes the feeling is so strong that the courts are appealed to for redress. In some instances the difference between the distance that some children must walk to school and the distance that other children are carried at public expense is so slight as to cause some feeling of doubt as to whether full justice is done. This feeling is especially likely to exist if the walking and riding pupils happen to be near neighbors.

The wish is sometimes expressed that a law could be made, prescribing a maximum distance for pupils to walk to school. In the absence of such a law, we are often asked to set the limit for the guidance of committees. But it can readily be seen that for conditions in this State the setting of a fixed limit for walking would be inadvisable. The walk of a mile and a half or even of two miles and a half for a rugged boy of fourteen might be less burdensome than a walk of half the distance for a young or weak child. Again, the character of the way and the question of numbers must be taken into account in consid-

ering the distance which may be walked. No considerate committee would oblige a young girl to walk alone in a way frequented by tramps, while other children under other circumstances might be asked to walk a long distance.

In trying to arbitrate differences between school authorities and parents in the matter of the conveyance of pupils, I have urged the consideration of each case on its merits. In a number of instances I have walked over the proposed road, for the purpose of ascertaining the difficulties or dangers which the children had to meet in getting to school. In most cases the recommendations offered have been accepted by both parties, and questions of difference, for the time being at least, have been dropped.

School Revenues.

Efforts have been made in recent years to equalize conditions in such a way as to make the maintenance of good schools possible in all parts of the Commonwealth without lessening local effort or without making the local tax too burdensome, and in a good degree these efforts have been successful. But it is plainly to be seen that unequal conditions still exist. There are towns which, even with half of the expense of the schools borne by the State, are unable to pay their teachers more than seven or eight dollars a week; and there are also towns of equal size that have so much of a surplus occasioned by the accumulated receipts from the State that they are at a loss to know how it can be expended. Again, there are larger towns of low valuation which have no State aid, and which are unable to keep up to the steady advance made in the salaries of teachers in the State at large. This demand for increased appropriations is strengthened by the constantly urged necessity of lessening the number of pupils to a teacher. The pressure for larger appropriations, therefore, becomes greater each year, until the question becomes a vital one in some places as to how the schools can be kept up to a high standard and the tax rate at the same time be kept within a reasonable limit.

To accomplish these ends, two things appear to be needed: (1) a larger State grant, from which more assistance to needy towns may be given; and (2) such a distribution of State funds as to make the grant to every town both adequate and equitable.

The first of these objects is simply enough attained by increasing the State fund. The second object is not so easily attained. The present plan of distribution of State funds is probably as equitable as any general plan could be. A better method would be to consider by itself the grant to each town needing assistance. That evidently is a difficult matter, and can be done only by a special board or commission constituted for the purpose. To fit the needs of changing conditions, it might be necessary to revise the schedule of State grants every five years.

School Delinquents and their Treatment.

When we consider that much of the crime committed is directly traceable to conditions which exist in childhood and youth, we are impressed with the importance of taking such precautions in early education as will prevent as far as possible tendencies to wrong-doing of every kind. The State, for prudential and pecuniary considerations alone, does well to look with greatest concern after those children who show signs of lawlessness or immorality. This Massachusetts does in various ways. For the more serious youthful offenders there are maintained by the State the Lyman School for Boys in Westborough and the Industrial School for Girls in Lancaster; and a placing-out system, by which children are put into homes, generally in the country, all over the State. By these means hundreds of children and youth are carefully protected and trained during minority, many of them being provided with means of self-support when they go out into the world.

For those children whose offences against law and order are clearly traceable to mental or physical defects, the School for the Feeble-minded in Waltham is maintained. Here those who are likely to be a menace to the community are kept during their lifetime. Employment in the shop or house or on the farm is provided for these unfortunates, thus making their lives happier, and preventing in good time the disorders which would be sure to arise if they were left unaided.

For those delinquents whose offences are in any way connected with the school, the State provides for the maintenance of truant or parental schools, to be established and supported by the counties. These school delinquents are named in the

law as habitual truants, habitual absentees and habitual school offenders.

It is of this latter class of delinquents and their training that I would like to treat somewhat at length, partly for the purpose of reporting upon present conditions, and partly for the purpose of presenting some suggestions for improving present conditions.

School Delinquents described. — By an habitual truant as defined by law is meant a child between seven and fourteen years of age, who wilfully and habitually absents himself from school contrary to the provisions of a law which obliges him to attend school the entire time the public day schools are in session.

By an habitual absentee is meant a child between seven and sixteen years of age, who may be found wandering about in the streets or public places of any city or town, having no lawful occupation, habitually not attending school, and growing up in idleness and ignorance.

By an habitual school offender is meant a child under fourteen years of age, who persistently violates the reasonable regulations of the school which he attends, or otherwise persistently misbehaves therein so as to render himself a fit subject for exclusion therefrom.

Correctives provided by Law. — All the delinquents named above may be committed to truant schools by a court or magistrate, upon complaint by a truant officer. The terms for which truants are committed are now generally indeterminate, the county commissioners being authorized under certain conditions to release children on parole or to discharge them from custody.

The responsibility of parents and guardians in respect to school attendance is made manifest by the law which authorizes the imposition of a fine upon them if they fail to keep their children in school. Persons are also liable to a fine who induce or attempt to induce a child of school age to be absent from school, or who employ or harbor a child while school is in session.

Of these two means for correcting truancy and school absenteeism recognized by law, — that of proceeding directly

against the child and that of proceeding against the parent and employer, — the first is practically the only one at present resorted to. How differently this law is interpreted and enforced in the State at large is shown in what follows.

The following tables show the location of the various truant schools and the places from which the pupils are committed: —

Table showing the name and location of each truant school and the name of its superintendent.

County truant schools.	Location.	Superintendent.
Essex,	Lawrence,	W. Grant Fancher.
Hampden,	Springfield,	Erwin G. Ward.
Middlesex,	North Chelmsford,	M. A. Warren.
Norfolk, Bristol and Plymouth,	Walpole,	James H. Craig.
Suffolk [1] (Boston Parental),	West Roxbury,	D. P. Dame.
Worcester,	Oakdale,	F. L. Johnson.

[1] Under the law, commitments from Chelsea, Revere and Winthrop in Suffolk County must be to the truant school for the county of Middlesex.

The counties of Barnstable, Berkshire, Dukes, Franklin, Hampshire and Nantucket are exempted by law from maintaining truant schools of their own, but the county commissioners of each of these counties are required to assign an established truant school as a place of commitment for habitual truants, absentees and school offenders. The places designated by the several commissioners are as follows: —

County.	Location of assigned truant school.	County.	Location of assigned truant school.
Barnstable,	Monson,	Franklin,	North Chelmsford.
Berkshire,	Springfield,	Hampshire,	North Chelmsford.
Dukes,	Walpole,	Nantucket,	-

PLACES FROM WHICH PUPILS ARE COMMITTED.

Essex County School.

Lynn,	39	Manchester,	1
Haverhill,	7	Saugus,	1
Salem,	7 [1]	Beverly,	9
Peabody,	1	Marblehead,	2
Lawrence,	29	Georgetown,	1
Gloucester,	3		

Number of towns in the county unrepresented at the present time, . 23

Hampden County School. (*Assigned school for Berkshire County.*)

Springfield,	11	Holyoke,	4
Pittsfield,	5	North Adams,	1

Number of towns in Hampden County unrepresented, ... 21
Number of towns in Berkshire County unrepresented, ... 30

Middlesex County School. (*Assigned school for Franklin and Hampshire counties; also assigned school for Chelsea, Revere and Winthrop, in Suffolk County.*)

Lowell,	63	Winchester,	2
Cambridge,	51	Marlborough,	1
Somerville,	10	North Reading,	1
Chelsea,	9	Holliston,	1
Waltham,	4	Groton,	1
Newton,	2	Reading,	1
Melrose,	2	Medford,	1
Malden,	2	Stoneham,	1
Ware,	2	Wilmington,	1
Watertown,	2		

Number of towns in Middlesex County unrepresented, ... 37
Number of towns in Suffolk County unrepresented, ... 2
Number of towns in Hampshire County unrepresented, ... 23
Number of towns in Franklin County unrepresented, ... 26

UNION SCHOOL FOR THREE COUNTIES.

Bristol County.

New Bedford,	20	Rehoboth,	1
North Attleborough,	2	Taunton,	7
Fall River,	16		

Number of towns in Bristol County unrepresented, ... 15

[1] In Plummer Farm School.

Norfolk County. (*Assigned school for Dukes County.*)

Brookline,	3	Walpole,	1
Weymouth,	1	Norwood,	1
Wellesley,	1	Canton,	1
Hyde Park,	1		

Number of towns in Norfolk County unrepresented, ... 22

Plymouth County.

Brockton,	5	Whitman,	1

Number of towns in Plymouth County unrepresented, ... 25

The county commissioners of Franklin and Hampshire counties, as required by law, have assigned the North Chelmsford School as the place for the commitment of truant absentees and school offenders, and Barnstable County and Dukes have assigned Monson and Walpole, respectively, but no child is reported to have been committed from those counties.

The county commissioners of Nantucket County are also required by law to assign a place for the commitment of school delinquents, but so far as I can learn they have not done so, and no child has been committed in recent years from that county.

The Worcester County School has made no returns of attendance.

It will thus be seen that in 295 towns and cities, not counting Worcester County, 246 towns have not been represented in any school during the past year. It is difficult to believe that all the boys of these counties who need correction for any of the offences named in the law of school delinquency are found only in 49 towns and cities. These towns and cities, it is true, include most of the cities and many of the largest towns, but they do not include such places as Attleborough, Chicopee, Everett, Framingham, Newburyport, Northampton, Plymouth, Wakefield, Westfield and Woburn, all of which have more than 10,000 inhabitants. Nor do they include 30 or more towns which have from 5,000 to 10,000 inhabitants. But troublesome absentees are not confined to the schools of the larger places. Those who are most familiar with the conditions of school attendance in country towns will hardly be willing to admit that there are no habitual absentees there, or that extraordinary means are not needed to secure full conformity to the law.

All this does not prove that boys should be sent from all places

to a truant school, but it shows that the towns and cities of the Commonwealth are not equally awake to the importance of keeping the children in school, and of enforcing the law against truants and school absentees.

Present Institutional Conditions. — The following tables show the number of boys in attendance upon the various schools, and the offences for which they were committed: —

Table showing the number of pupils attending, and number of pupils admitted and discharged during the year.

Location of County schools.	Number at beginning of year.	Number admitted during the year.	Number discharged during the year.	Number at close of the year.
Lawrence,	75	39	21	93
Springfield,	29	16	4	41
North Chelmsford,	148	90	19	219
Walpole,	39	51	29	61
West Roxbury,	265	221	243	243
Oakdale,[1]	45	30	31	44
Totals,	601	447	347	701

Table showing the number of children committed to truant schools as habitual truants, absentees and school offenders, and the number released for various reasons, during the year.

Location of County schools.	Number committed during the year.			Number released during the year.		
	As habitual truants.	As habitual absentees.	As school offenders or delinquents.	At expiration of term.	On probation and pardoned.	Sent to Lyman school.
Lawrence,	37	2	–	10	11	–
Springfield,	13	2	1	4	20	–
North Chelmsford,	82	1	5	19	61	1
Walpole,	44	1	6	19	10	–
West Roxbury,	194	11	164	17	226	1
Oakdale,[1]	30	–	–	23	8	–
Totals,	401	17	176	92	336	2

[1] Statistics taken from returns of the previous year.

The length of time during which boys remained in the various schools is shown by the following table: —

Table showing the time of service of boys in the various schools.

Schools.	Longest time served by any pupil (months).	Shortest time served by any pupil (months).	Average time of service (months).
Lawrence, ...	24	3	18
Springfield, ...	20	4.5	11.8
North Chelmsford, . . .	26	13	16
Walpole, ...	24	4	14
West Roxbury, ...	28.5	1.9	13

But little change has been made in any of the external conditions of the various schools since my last report. The new building for the Essex County School, referred to in that report, is well under way, and will soon be ready for occupancy. No provision is made in this building for industrial training rooms; but it is hoped that a portion of the old building will be put to such use when the new building is finished and occupied.

The temporary buildings at the West Roxbury school are still occupied for school purposes, with no immediate prospect of a change for the better. An extension of this school is to be made soon by providing accommodations for girl truants. A building about half a mile from the boys' buildings is now being fitted up for the purpose, and will accommodate from 15 to 20 girls. If present plans are carried out, it will be admirably suited to the purpose intended.

The course followed in the schools is not unlike the courses found in many cities and towns of the Commonwealth where the main emphasis is placed upon the three "R's," and where there is a close adherence to the text-book. The teaching also may be said to compare favorably with what may be found in many places. In saying that the school work is fair in most of the schools and in some of them good, I am, I believe, doing the teachers full justice. But it should be better than it is. There is every reason why these special schools should be supplied with

teachers whose personal influence and teaching are uniformly of the highest order. It would of course be expensive to put such teachers in all the schools, but the extra money spent might be saved many times over in decreased court and prison expenses.

Another means of prevention should be used, — one that has been spoken of many times in the reports of the agents of the Board, — and that is, more manual or industrial training. To keep these boys in an institution for months and years, and send them out with no industrial skill in any particular direction, and with no desire to acquire it, is a shameful neglect of a great opportunity. The following table shows the number of hours spent daily by the boys in their various occupations. The housework referred to is too frequently of the same kind for months together, — like scrubbing the floor, washing dishes, and laundry work. This work, of course, should be done by the boys, but it should be reasonable in amount, and as far as possible be varied from month to month.

Table showing the average number of hours spent daily in various occupations.

County schools.	Household and outdoor duties.	School duties except manual training.	Manual training (average).	Meals and recreation.
Lawrence,	5½-6 [1]	3	–	5½-6
Springfield,	3	4¼	½	6
North Chelmsford,	1½-5	3-5½ [2]	1	4½-5½
Walpole,	5	4¾	–	4
West Roxbury,	0-5 [3]	4⅖	⅗	1-5

[1] Older boys.
[2] The youngest boys have two sessions.
[3] The younger boys have no household duties.

Suggestions for Improvement. — If I were to make suggestions along present lines of organization and practice, I could do no better than to repeat the summary of suggestions made in my last report, which was as follows: —

1. The appointment of one or more State attendance officers, with a view of apprehending violators of the law in all parts of the State.
2. The inspection and separation of offenders, with a view of proper

protection and correction. This applies especially to the feeble-minded and "moral imbeciles."

3. An extension of the probation system, by the employment of special probation officers and visitors, such as are now employed in connection with the Lyman and Industrial Schools.

4. The maintenance of external conditions in all detention schools, by which the children may have the protection of a good home and proper facilities for abundant and varied industrial training.

5. A unifying of the schools to the extent of providing expert supervision and instruction, with a view of protecting weak and innocent children, and of correcting as far as possible all tendencies to criminality.

These recommendations are quite in accord with a report to the Legislature made in 1896 by Agent Geo. A. Walton, under the direction of the State Board of Education. In this report the following statements were made in recapitulation, based upon the most careful investigation of school attendance and truancy in the Commonwealth: —

I. There is a considerable number of children in the Commonwealth — above 5 per cent., by estimate — that fail, from parental neglect and truancy, to obtain the amount of schooling required by law.

II. The legal means for enforcing the laws in regard to compulsory attendance and truancy are inadequate or inoperative in small towns, largely because they depend for their enforcement upon local officers.

If the estimate contained in the first statement is correct, and if the conditions of school attendance are no different now from what they were ten years ago, there are at present upwards of 18,000 children of compulsory school age who fail to comply with the law. Upon the supposition that only one fifth of such children need to be apprehended by law, there would be in the truant schools more than six times the number of children that are now there. To provide for such a number, there would have to be either an extension of present accommodations, or the adoption of a plan of probation such as is indicated in the third recommendation given above.

A plan of control, involving all the features of administration suggested, would be difficult to adjust to present conditions; but such a plan could doubtless be devised and administered by a special board or commission, like that of the trustees for

the Lyman and Industrial Schools, or like that of the directors of the Children's Aid Society.

Radical Reforms needed. — In what I have said thus far I have assumed that whatever changes are made should be based upon present conditions. It may generally be best to build upon the results of past experience; but the more I consider the whole question of delinquents and their treatment, the more I am convinced that new lines of effort must be entered upon before satisfactory results are attained.

The importance in all reforms of removing the causes of possible wrongs before the wrongs appear is now universally recognized, and in no reforms should this principle be more diligently applied than in preventing criminality. The apprehension of truants and the establishment of truant schools have no doubt been prompted by a desire to prevent boys from becoming criminals, but the work of prevention has not been begun soon enough. School officials have apparently been content with a bare compliance with the law, which contemplates no action against the boy until after truancy becomes a habit, while in most cases no action is taken until the offence is of a more serious character. Efforts, to be most potent in preventing the effects of truancy, should be directed against the tendency or dangers of truancy, and such efforts should be begun as soon as the child enters school.

A child plays truant either because the school has too little interest for him, or else because the parent cannot properly control him; probably in most cases both circumstances affect his conduct. If the subjects taught and the teachers were in all respects what they should be, and if the parents had full control of their children, there would be little heard of truancy or its effects. There are three causes of truancy, therefore, which deserve attention, viz.: (1) a narrow curriculum, which fails to meet the needs or interests of all the pupils; (2) inefficient teachers, who, by reason of a lack of skill, tact and sympathy, fail to reach some of their pupils; and (3) weak or indifferent parents, who fail in their duty of keeping their children in school.

It is of course true that the many diversions of both city and country life tend to distract the interest of the children from

the school, and so to keep them from it; but that such diversions are counteracted in a large degree by broad courses of studies, and skilful, sympathetic teachers, has been proved by abundant experience. The difference in the number of truants committed to truant schools from the various towns may be accounted for in part by the difference in the courses of studies pursued and in the character of the teachers. Differences in these respects are likely to continue, but the tendency at present is in the direction of a uniform extension of the course, so as to include those branches of study which appeal to the interests and meet the needs of pupils and of the maintenance of a high standard of qualifications for teachers. If such standards of curricula and teachers are good for some places, they are good for all, and they should be made obligatory by law throughout the State.

Parental Control. — The third cause of truancy named — inability of parents to control their children — is doubtless the most potent of all causes of truancy, and it should, therefore, be especially considered in seeking to find effective remedies.

The State should first adopt some means by which parents or guardians shall realize their obligation to keep the children in school. If they fail in their duty in this regard, the State is justified in taking direct charge of the children. At present the custom appears to be to do everything possible to relieve the parents of such obligation, either by not enforcing the school attendance law, or by enforcing it in such a way as will take the children directly from the care of the parents. The result is, that frequently parents are only too glad to have their children cared for at the county or town's expense until such time as they are permitted by law to go to work. It is a great question, also, whether many of these children are permanently benefited by being taken away, even from poor homes, and keeping them in an institution for either a long or a short term. If the time of incarceration is short, the habit of truancy or incorrigibility is not permanently checked; and if the time is long, the children become in a measure institutionalized, and so unfitted for life under ordinary conditions. The probation plan may serve to lessen somewhat the dangers of institutional life; but the fact that many of the children are returned to the institution a sec-

ond and a third time is an evidence of the inefficiency of short terms.

The most direct and effective means of reaching the parents and of forcing upon them the duty of keeping their children in school is by a progressive and judicious system of fining. Wherever such a plan has been carefully and fully tried for a long period of time, the result has been to lessen perceptibly the amount of truancy and attendant evils. There is now a law on the statute books permitting this to be done, but it is seldom resorted to, partly perhaps because the other means are more agreeable to parents, who are willing to throw the responsibility and consequences of a lack of parental control upon their children. Another reason is, a want of willingness to impose small fines for first offences. In Germany, fines of twenty-five or fifty cents are not uncommon, and are said to be very effective. Here, one-dollar or two-dollar fines for first offences might be equally effective in bringing the parent or guardian to a realizing sense of his duty to "cause" (so reads the law) his child to attend school.

To assist parents in their duty, and to prevent a large number of children from being taken from their homes, "disciplinary schools" should be established in cities and large towns, in which are collected a limited number of persistent truants and incorrigible children, to whom special attention is given. This special attention may consist of extra care in following up the school attendance of pupils, and the employment of teachers of extraordinary power and efficiency.

With these two means of correction diligently applied, there would be, it is hoped, comparatively few children who would need to be taken away from their homes. But if such need exists, there is no reason why the parent or guardian should not forfeit his claim to the child for a long period of time. It is by no means certain, however, that the child should be made to suffer for the fault of others by being forced to lose his freedom. After a brief period of detention in some central school, the child could be placed out in some good home, where in changed surroundings he would be given, for the first time, perhaps, a fair chance. There is no reason why this period of the State's guardianship over the child should not be prolonged to such

time as would include a good high school training, or the learning of a trade.

The central school above alluded to would be for the benefit of candidates for placing out on probation, who would presumably remain in the school but a brief time. Another central school would be for the confinement and treatment of those boys who could not be reached in any of the ways suggested. They would not include the feeble-minded, nor any other defectives who need special medical treatment. These persistently incorrigible boys would necessarily have to be under rigorous discipline, but it should be as far as possible the discipline of a good home. They would have as much freedom as they could properly use, and have the best possible training under the most skilful and sympathetic teachers. In addition to regular school work, three or four hours a day of industrial training would be given them before the trade which they choose is begun. This training would include varied house, barn and garden work, as well as training in some manual art. All the while the promise should be held out to them that they may go into some good home as soon as they show a disposition to behave themselves in it.

The time during which the State should have control of the boys who are taken away from their homes would be during minority; but the duration of immediate care and oversight would depend upon circumstances, the circumstances being the behavior of the boys and the character of the home surroundings. If the boy of this school for a reasonable period of time shows no inclination to lawlessness or insubordination, and his home surroundings are no hindrance to him, he should be allowed to go to his home, but only on probation; or, if his behavior is good and his home surroundings are bad, he might be placed on probation in a good home.

For the complete success of this plan of solving the problems of school absenteeism and its attendant evils, several conditions of administration should be assured. There should be: (1) a careful enumeration and registration of children of school compulsory age; (2) carefully selected attendance officers, whose duty includes a constant visitation of homes where school attendance is irregular, as well as immediate and uniform action

in all cases of unexcused absence from school; (3) carefully selected probation officers, whose duty is to visit, advise and direct all children placed on probation, and to report upon them; (4) a special court, with full jurisdiction in all juvenile cases, and with powers sufficient to apply the remedies of school absenteeism and lawlessness where they belong; and (5) an administrative board or commission, consisting of persons especially interested in the treatment of juvenile offenders.

The attendance officers above alluded to should be both State and local officers, to whom is given separate and concurrent jurisdiction in all cases of absenteeism. In many cases, doubtless, it would be necessary only to bring the absentee before the prosecuting attorney, actual prosecution being delayed by reason of promises given by parent and child.

It is reasonable to expect that, in some such treatment of school delinquents as I have outlined, greatly improved conditions would be secured. In the first place, there would be reached a much larger number of offenders than is now the case, and for the correction of many of these offenders, parents or guardians would become responsible. The rights of comparatively innocent children would be protected in their being kept from the disgrace of arrest, and the dangers of possible contamination in a reformatory institution. The correction of absenteeism under the proposed plan would be begun before habits of truancy or lawlessness are formed. And, finally, the treatment of offenders would be of such a kind as to lead to the permanent reform of a large number of boys who under present conditions are likely to become criminals or a public charge.

In this brief outline of a plan of treating school delinquents I have had especially in mind boy delinquents. That faulty home surroundings have a tendency to force girls as well as boys into some form of school delinquency is only too apparent. The number of such girls is comparatively small, especially of those whom it will be found advisable to take from their homes; but the smallness of the number is no cause for neglect. In general, it may be said that the methods of treating school absenteeism, whether of boys or of girls, should be the same, with the possible difference of providing for a closer scrutiny of

home surroundings and influences in the case of girls. The experiment that is soon to be tried in the maintenance of a girls' parental school in West Roxbury will be watched with interest. The results of that experiment, together with the results of the recently established juvenile court in Boston, may help in determining the practicability of some of the theories of prevention which I have imperfectly set forth in this report.

Respectfully submitted,

JOHN T. PRINCE.

Dec. 31, 1906.

Appendix B.

REPORT OF J. W. MACDONALD,

AGENT OF THE BOARD.

Natural Science in Massachusetts High Schools.

REPORT.

During the year just ended I have given special attention to the condition of natural science in the high schools of the State. I have endeavored to ascertain: what subjects comprised under this head are offered, and what time is given to them; what, if any, principle prevails in their arrangement in the courses of study; what laboratory facilities are provided, and the character and limitation of laboratory work; how far it is the aim of the instruction to make the knowledge practical, and to what extent the notion of discipline predominates; what the general attitude of pupils towards these subjects is; and, lastly, whether there is any need, and, if so, any possibility, of giving the natural sciences more consideration in high school programs. I have collected some information that permits tabulation, and answers some of the above queries. It seems to me best to present this at the outset, as it will furnish the ground for much of the later discussion.

Although the note prefixed to Table I. will undoubtedly make it intelligible to those who care to consult it, yet a word or two of further explanation may be helpful.

The letters a, b, c, d, as will be seen, indicate respectively the first, second, third, and fourth years of the high school course (e, the fifth year, when there is a five-years course), and show in what year or years the subject specified is taught; the accompanying figures show the amount of time given to the subject, measured in recitation periods, a unit of by no means unvarying value, but the best we have. These periods vary in length from twenty-five to fifty-five minutes, but their real effectiveness depends more on the teacher than on their length.

Where the number of recitation periods given are from 60 to 100, it may generally be inferred that the subject is a half-year study, with from three to five recitations a week; where less than 60, the time is probably one term. The sub-

jects that are most frequently given for a half year or less, and the time of the year when they are usually taught, are as follows: astronomy, geology, and zoölogy the first half of the year; botany and physiology the last half. Of course in some schools these subjects, or some of them, are extended through a year or more. In the majority of schools physical geography, too, is a half-year subject.

Some schools offer in certain of the sciences two courses, adapted to different aims on the part of pupils; but in all such cases the school is credited with the longer course. Courses in biology, mineralogy and physiography were reported by a few schools; but in these instances the biology is tabulated with botany and zoölogy, the physiography with physical geography, and the mineralogy with geology.

In physics and chemistry the table attempts to show how the time is divided between recitation and laboratory instruction, but in most cases the distinction is perhaps nominal.

Every town and city in the State that supports a high school is represented in the table, except a few that have partial high schools. Also, some of the towns whose "high schools" are really private academies are omitted. Small towns, having two or more high schools, are represented by only one; and of Boston's 13 high schools, the English High, the Girls' High, the Dorchester High, the Mechanic Arts High, and the new High School of Commerce, are taken as representative. Altogether, 228 cities and towns are represented by 239 high schools. In the subsequent discussion all the high schools of any place will be treated as one.

Many of the smaller high schools are able to increase the number of sciences offered by uniting two classes, and teaching certain subjects alternate years. The most common way of doing this is as follows: one year, the second and third classes, let us say, are united in chemistry; next year, the present second class, then the third, will have physics with the new second class; and so on.

TABLE I. — *Showing the extent of instruction in the natural sciences in Massachusetts high schools, measured in recitation periods per year.*

[The letters a, b, c, d, designating respectively the first, second, third and fourth years of the school (e when there is a fifth year), show in what years the subject is taught. The interrogation mark indicates that there is a course of which details are not given. The star, dagger or double dagger indicates that the subjects thus marked alternate with each other yearly.]

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Abington,	–	a-80	d-120	80	b-160	b-160	c-120	80	a-80	–	–
Acton,	–	–	c d *-160	160	–	–	b c *-160	60	–	–	a-60
Adams,	a-80	–	d-120	160	b-80	b-80	c-120	160	–	a-80	–
Amesbury,	–	d-120	c-80	120	–	–	b-80	80	–	–	–
Amherst,	d-50	b-95	d-100	100	d-140	a-95	c-100	100	a-100	b-100	–
Andover,	–	a-160	d-80	160	–	b-160	c-80	160	–	–	–
Arlington,	d-80	a d-220	c-80	120	c-100	–	b d-200	120	–	–	–
Ashby,	c-60	–	b-40	40	–	c-60	a-120	40	b-80	–	–
Ashfield,	–	b-160	d *-120	200	–	a-160	c *-120	100	c-160	–	c-160
Ashland,	d-66	d-66	d *-160	80	d-66	–	b d *-200	100	c-53	–	–
Athol,	–	a-100	b-120	80	–	a-100	d-120	80	–	–	–
Attleborough,	d-60	a-60	c-120	80	d-60	a-60	b-120	80	–	–	–
Avon,	–	–	d *-160	40	–	–	c *-160	40	–	–	–
Ayer,	–	b-80	c-40	160	–	–	c-40	160	d-40	–	–
Barnstable,	–	–	c-48	24	–	a-64	b-80	80	–	–	–

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Continued.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Barre,	–	a-100	c-160	80	d-80	–	b d-180	100	a-100	–	–
Belchertown,	d-30	b-60	c-60	–	d-30	a-120	b-120	–	c-60	–	–
Belmont,	–	b *-100	c d-100	200	b *-100	a *-100	c d-170	50	–	–	–
Bernardston,	d-50	c-60	b-80	80	c-39	d-50	c-140	–	–	–	–
Beverly,	d-120	b-120	a c e-400	160	–	e-120	b d-280	120	c-60	c-60	–
Billerica,	–	c-80	d *-80	160	–	a-80	c *-80	160	a-40	–	–
Blackstone,	–	–	c-80	–	–	–	b-120	–	–	–	–
Bolton,	b c d-80	?	–	–	–	–	–	–	?	–	–
Boston: —											
English High,	–	a-200	c d-240	240	–	–	c d-120	280	–	–	–
Girls' High,	–	a-120	c d-240	160	–	–	c d-240	160	d-120	b-120	–
Dorchester High,	–	a-160	c d-100	300	–	–	b c-160	160	c-120	b-160	–
High School of Commerce,	–	–	c-100	100	–	a-80	a-80	–	–	–	–
Mechanic Arts,	–	–	d-100	100	–	–	c-100	d-100	–	–	–
Bourne,	b-36	b-36	a b d-50	100	–	c-60	a d-52	156	c-54	–	–
Braintree,	–	b-80	d-100	100	–	a-80	c-100	100	b-80	–	–
Brewster,	c-72	a-36	–	–	c-36	–	b-144	–	a-48	–	–
Bridgewater,	–	–	c-100	100	–	a-200	a d-300	100	–	–	–
Brimfield,	b-140	a-80	c *-160	100	–	a-60	d *-160	140	a-40	b-?	–

Brockton,	d-100	a-100	c d-80	320	d-100	a-100	b c d-160	320	a-100	a-100	-
Brookfield,	-	-	c *-80	160	-	-	d *-80	160	-	-	-
Brookline,	-	a c-140	d-40	160	-	b c-280	c d-160	120	-	a c-140	-
Cambridge: —											
Latin,	-	-	c-?	40	-	-	c-	40	a-30	-	-
English,	d-120	c-80	c-80	120	-	-	b-120	80	a-36	-	-
Rindge Manual Training,	-	-	d-100	100	-	-	c-100	{ 100 / d-400 }	a-40	-	-
Canton,	-	c-120	d-80	80	c-120	-	c-80	80	b-40	-	-
Carver,	-	a-150	c *-75	150	-	d-200	d *-150	50	a-50	-	-
Charlton,	-	a b-120	c *-100	?	-	a b-200	b *-100	-	-	-	-
Chatham,	-	-	d-72	-	d-72	-	c-72	-	c-72	c-72	-
Chelmsford,	d *-100	b *-100	d †-200	-	d *-100	b-100	c †-200	-	-	-	-
Chelsea,	d-40	c-80	b-60	60	c-80	-	a-50	50	a-40	d-200	-
Chester,	-	-	a-100	-	-	-	a d-160	200	-	-	-
Chicopee,	-	a-100 [1]	c-140 [1]	140	-	b-120 [1]	b-120	120 [1]	-	a-100 [1]	-
Clinton, [2]	-	a-100	c-120	80	-	d-80	b d-280	120	d-80	a-100	-
Cohasset,	-	d-200	d-80	120	d-160	-	c d-280	160	d-200	-	-
Concord,	-	d-60	c-80	80	-	-	b-80	40	d-60	-	-
Conway,	-	b *-80	d-120	80	b *-80	-	c-120	80	-	-	-
Dalton,	-	d-75	d-80	190	-	b-200	b-200	100	a-65	-	-
Danvers,	-	a-100	d-80	120	-	a-100	c-80	120	b-100	b-100	-
Dartmouth,	-	c-39	-	-	-	a-78	b-80	40	a-39	-	-

[1] Fourth year pupils may elect these or biology, if program permits.

[2] Also psychology, d-40.

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Continued.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Dedham,	–	d-80	c-80	80	–	–	b d-200	160	d-80	–	–
Dennis,	–	–	–	–	b-50	b-100	c-125	40	a-60	–	–
Douglas,	d-80	d-80	c *-160	–	c-80	–	b *-160	–	b-100	–	–
Dudley,	–	–	d-111	74	d-90	d-90	d-111	74	–	–	–
Duxbury,	–	a b-84	d *-96	24	–	–	c *-120	40	a-32	b c-100	–
East Bridgewater,	–	–	c *-40	120	c-39	–	d *-80	80	–	–	–
Easthampton,	–	a-80	c-90	180	–	b *-80	a d-138	228	–	a-80	–
Easton,	–	b-48	d-80	80	b-112	a-160	c-80	80	–	–	–
Edgartown,	c-60	c-60	b-20	40	c-60	–	a-160	–	b-60	–	–
Essex,	c-60	b-60	d *-40	80	c-60	b-60	a d *-120	80	d-40	–	–
Everett,	–	d-120	c d-80	320	–	–	b d-160	240	–	–	–
Fairhaven,	–	–	c d-80	120 [1]	–	–	b c d-80	120 [1]	–	–	–
Fall River,	d-80	c-160	d-80	80	d-80	c-160	c d-200	160	b-160	d-160	–
Falmouth,	–	b-160	c *-80	160	–	b-120	a c *-160	200	–	–	–
Fitchburg,	c-80	c-160	c d-160	240	c-80	–	b d-240	120	–	a-160	–
Foxborough,	c-57	c-57	b d *-156	116	–	–	b d *-156	78	d-38	–	–
Framingham,	–	a-160	b-120	80	–	c-160	a b-200	160	c-40	–	–
Franklin,	a-160	b-80	d-40	120	–	–	c-80	80	–	b-80	–
Gardner,	b-? [2]	d-80	c-200	120	d-80	b-200	b d-320	160	a-80	a-120	–

Georgetown,	d *-120	b *-100	c *-120	120	-	a *-50	a *-150	-	b *-50	b *-50	-
Gloucester,	c-113	a-113	c-113	-	d-100	d-100	b-50	50	c-87	-	-
Grafton,	-	a-80	c-76	114	-	b-76	d-114	76	a-64	-	- [3]
Granby,	-	c-65	c-110	30	c-65	a-80	b-160	40	a-65	-	-
Great Barrington,	-	b-100	d-100	90	-	a-200	c-150	70	b-100	-	-
Greenfield,	-	a-80	c-40	140	-	a-80	b-120	40	-	-	-
Groton,	-	a-80	c-120	80	-	b-80	d-120	80	b-80	-	-
Groveland,	-	b-80	d-80	80	b-80	-	c-160	40	a-80	-	-
Hadley,	-	b-100	c-120	160	-	a-100	d-120	80	-	-	-
Hanover,	-	c-100	d-80	160	c-80	b-80	a-200	b-120	a-100	-	-
Hardwick,	-	-	c-80	120	d-100	a-160	b-125	75	-	-	-
Harwich,	d-65	c-65	c d *-200	-	b-100	a-160	c d *-200	-	-	-	-
Haverhill,	-	b-80	d-80	120	c-80	c-80	c-120	80	b-80	-	-
Hingham,	-	a-100	d-70	70	-	-	b d-300	100	-	-	-
Holbrook,	d-48	a-48	c d-85	85	d-48	a-76	b-85	85	-	-	-
Holden,	-	-	-	-	-	-	d-190	-	-	-	-
Holliston,	c d-160†	c d-160†	c d-80	160 *	c d-160†	-	c d-200	80*	a-80	-	-
Holyoke,	-	d-100	c-80	120	-	a-200	b d-160	240	-	-	-
Hopedale,	c †-80	d †-80	c *-80	80	d †-80	c †-80	b *-120	40	-	-	-
Hopkinton,	d-50	d-50	b *-40	160	d-50	a-160	b *-40	160	d-26	-	-
Hudson,	-	a b-110	d-120	80	-	a-140	c-160	?	b-75	b-75	-
Huntington,	-	d-65	c d *-180	120	-	a-65	a c *-140	104	a-65	-	-

[1] One mixed class.

[2] Included in physical geography.

[3] Included in botany.

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Continued.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Hyde Park,	–	a-160	c-100	100	–	–	d-160	40	a-40	b-160	–
Ipswich,	d-80	d-80	b-48	72	d-80	–	a d-190	50	–	–	–
Kingston,	–	d-75	c-80	80	d-45	a-75	b d-220	100	a-45	–	–
Lancaster,	–	a-80	c-180	?	–	a-80	b-100	?	–	–	–
Lawrence,	–	c-100	d-120	80	–	a-100	c-160	40	–	b-200	–
Lee,	–	–	–	–	–	b-200	c-200	?	–	–	–
Leicester,	–	b *-80	d-120	80	–	a *-80	c-120	80	a *-12	b *-80	–
Lenox,	–	c-80	–	–	–	d-80	b-160	80	c-120	–	–
Leominster,	–	a-120	c-100	100	–	–	b d-140	180	–	–	–
Lexington,	–	b-60	d-80	160	–	a-160	c-80	140	b-60	–	–
Littleton,	–	–	d-120	80	d-60	–	b c-240	80	a-80	–	–
Lowell,	c-100	d-100	c d-240	160	c-100	a-100	a d-280	220	c-100	–	–
Ludlow,	–	b †-160	c *-80	120	–	a-160	d *-80	120	–	b †-160	–
Lunenburg,	c-55	b-55	a d *-80	60	c-85	c-60	a d *-190	80	b-60	b-85	–
Lynn: —											
Classical,	b c-?	b d-140	d-80	120	–	–	d-40	80	b d-140	–	–
English,	d-80	c-120	d-80	80	d-80	–	a c-160	240	d-60	d-60	–
Malden,	–	a-120	c-120	80	d-120	–	a d-200	80	–	d-200 [1]	–
Manchester,	–	a-100	a c-160	160	b-100	b-100	a d-160	100	a-100	d-100	–

Mansfield,	–	b-100	a d-160	80	–	?	a c-260	80	b-100	–	–
Marblehead,	–	b-100	c-80	120	–	d-100	a-200	–	b-100	–	–
Marion,	–	c *-111	c-111	74	–	–	b-111	74	d-56	c *-111	–
Marlborough,	–	c-80	d-80	120	c-80	–	a c-160	200	–	–	–
Marshfield,	d-80	d-50	d *-75	75	–	a-50	b *-100	100	a-150	–	–
Maynard,	b ‡-100	a †-100	d *-120	120	–	b ‡-100	a c *-160	120	a †-100	–	–
Medfield,	–	–	c-120	80	–	–	a-80	80	–	–	–
Medford,	d-120	a d-360	c d-240	160	–	–	b c-240	160	a-120	b-160	–
Medway,	–	b-80	d *-120	160	–	a-160	c *-120	160	b-80	–	–
Melrose,	d-120	–	c-80	80	d-120	–	b d-220	100	–	–	–
Mendon,	–	a-60	b *-80	80	d-60	d-60	c *-80	80	–	–	–
Merrimac,	c-60	c-60	c-84	56	–	c-80	b-84	56	d-?	–	–
Methuen,	d-52	d-52	c-80	80	d-52	b-200	b d-160	120	b-200	–	–
Middleborough,	d †-80	a-120	c *-120	80	d †-60	–	b-120	80	a-80	–	–
Milford,	b-60	a-120	d-120	80	b-60	b-60	c-120	80	a-80	–	–
Millbury,	–	a-80	–	–	–	a-80	c-80	80	–	–	–
Millis,	–	b-60	b d *-120	–	c-60	d-80	a d *-180	–	c-60	–	–
Milton,	d-120	c-160	d-80	160	–	a-240	a d-160	240	d-120	b-240	–
Montague,	d-100	b-100	d-120	200	c-100	b-100	c-200	120	–	–	–
Nahant,	b-55	d-110	d-44	11	b-55	a-55	c-148	37	a-55	–	–
Nantucket,	d-80	b c-80	d-160	–	b-80	b-80	c-80	–	a-80	a-80	–
Natick,	–	b-160	c-100	100	–	–	a d-220	180	c-80	–	–

[1] Biology.

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Continued.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Needham,	–	b-80	c-120	80	–	–	d-120	80	b-80	–	–
New Bedford,	–	b-80	d-80	160	–	d-80	a c-160	240	d-80	b-80	–
Newburyport,	d-60	a-80	c-40	160	–	d-60	c d-160	320	d-40	–	–
New Salem,	–	b-100	b-125	75*	–	a-100	a b-250	50*	–	–	–
Newton,	–	b-160	c-120	80	–	–	a d-280	120 [1]	d-80	–	–
Norfolk,	–	a-80	–	–	–	b-90	–	–	a-80	–	–
North Adams,	–	a-97	d-117	78	–	b-195	c-117	78	a-97	–	–
Northampton,	–	b-80	d-80	160	c-120	a-200	c-120	120	–	b-80	–
North Andover,	–	a-100	c-40	160	–	–	a d-240	120	a-100	–	–
North Attleborough,	–	b-120	c d-160	160	–	a 120	b d-160	160	–	–	–
Northborough,	–	b-80	d-80	80	–	a-80	c-80	80	b-80	–	–
Northbridge,	–	b-120	c*-80	80	–	a-120	d*-80	80	b-40	–	–
North Brookfield,	–	a-80	c-120	160	–	a-80	b-160	80	–	–	–
Northfield,	d †-80	b-80	d*-80	80	a-60	a-100	c*-80	80	b-80	d †-80	–
Norton,	c-60	b-80	d-40	160	–	c-60	a b-280	120	b-80	–	–
Norwell,	–	b-100	d*-80	40	–	b-120	c*-80	40	–	–	–
Norwood,	–	b-100	c-120	160	–	–	d-120	160	b-100	–	–
Oak Bluffs,	d*-160	c*-60	a †-80	160	c*-60	d*-60	b †-80	80	b-120	–	–
Orange, [2]	–	b-60	c-120	160	–	b-60	d-120	160	a-40	–	–

Orleans,	d-40	b-60	b-40	160	c-60	–	a d-200	80	c-60	–	–
Oxford,	–	–	d *-160	40	–	–	a *-160	–	–	–	–
Palmer,	–	b-180	c-80	200	–	a-100	d-160	80	a-100	b-180	–
Peabody,	c *-100	b-100	c-80	120	b *-100	a-200	b d-280	220	d-80	–	–
Pepperell,	d-50	c-50	c-20	60	d-50	–	c-80	–	b-40	–	–
Petersham,	–	? [3]	h *-80	120	? [3]	–	a *-160	–	–	? [3]	all-560
Pittsfield,	c-39	a-48	b-84	56	c-36	a-80	a c-157	–	c-80	–	–
Plainville,	d-80	b-72	b d *-145	100	–	d-80	a d *-330	70	b-40	–	–
Plymouth,	–	a-80	c-120	40	–	a-80	d-120	40	–	b-120	–
Princeton,	–	a-60	–	–	–	–	c d *-117	–	a-60	–	–
Provincetown,	–	b-80	b d-120	40	–	a-80	b-80	40	a-80	b-80	–
Quincy,	? [4]	a-100	c d-200	200	? [4]	d-200	b c-200	200	a-100	–	–
Randolph,	–	–	d-50	130	–	b-85	–	–	b-95	–	–
Reading,	–	?	c d-160	200	–	c-120	d-240	120	d-120	?	–
Revere,	c-120	b-140	c-80	80	d-120	–	a b c d-360	160 [5]	b-40	–	–
Rockland,	–	a-56	c-50	110	d-?	d-160	b d-240	80	a-48	a-56	–
Rockport,	c *-130	–	d-120	200	d *-130	–	c-200	–	–	–	–
Rutland,	–	–	–	–	–	b-80	c-200	–	b-80	–	–
Salem,	–	a-100	d-160	160	–	d-100	b c-320	80 [6]	d-100	a-100	–
Sandwich,	–	a †-60	b *-160	120	c †-80	c †-80	a *-210	120	a †-80	–	–
Saugus,	d-80	b-80	d-80	160	d-80	–	d-80	160	b-80	–	–

[1] Also offers b-150, 50.
[2] Also physics and chemistry, a-40.
[3] Taken in connection with agriculture.
[4] Included in physical geography; also, biology, b-200.
[5] For the last three years distributed as follows: b-120, 80; c-40, 40; d-80, 40.
[6] Also college preparatory physics, d-120, 80.

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Continued.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Scituate,	c *-40	b-60	c-60	60	c *-40	–	d-40	40	b-30	a-60	–
Sharon,	–	b-40	a b *-40	c-200	–	–	d *-0	200	–	–	–
Sheffield,	–	–	c *-120	–	–	a-120	d *-120	–	–	–	–
Shelburne,	–	d-120	c-100	100	–	–	b-120	80	a-100	–	–
Sherborn,	d-36	b-36	c *-120	160	d-36	d-36	b *-120	160	b-48	b-48	–
Shirley,	–	b †-100	c *-160	–	–	a †-100	a *-160	–	a-84	–	–
Shrewsbury,	–	b †-80	d *-80	80	–	a †-80	c *-80	80	b †-80	–	–
Somerville: —											
Classical,	–	–	d-40	200	–	–	c-120	120	–	–	–
English,	d-100	a d-240	c d-160	400	d-100	d-80	a c-160	400	c d-80	a d-240	–
Southborough,	–	b-80	d-160	?	–	a-80	c-160	–	b-80	–	–
Southbridge,	c-80	a-60	c-100	100	d-100	a-120	b-100	100	b-70	–	–
South Hadley,	–	a-80	b-80	80	–	a-80	c-120	80	–	–	–
Spencer,	–	a-80	d-80	160	–	a-80	c-120	80	–	–	–
Springfield: —											
Central High,	d-100	b-160	c-120	80	–	d-100	b d-280	120	b-160	–	–
Technical High,	–	–	c d-170	270	–	–	a b d-240	240	–	–	–
Sterling,	a-60	–	–	–	c-90	–	d-100	70	a-60	–	c *-85
Stockbridge,	–	–	c-100	–	–	c-100	c-100	–	–	–	–

Stoneham,	c-80	c-80	d-80	120	c-96	–	b c-120	120	c-96	–	–
Stoughton,	–	b-100	d *-160	200	–	b-160	c *-160	200	–	–	–
Stow,	–	–	c *-120	40	–	–	d *-120	40	–	–	–
Sudbury,	–	b-60	a c *-160	?	c-40	d-80	a c *-160	?	b-60	–	c-120
Sutton,	–	a-39	d-81	–	–	a-60	c-120	–	–	–	–
Swampscott,	–	b-80	d-120	80	–	b-80	c-120	80	–	–	–
Taunton,	d-100	c d-200	c-100	100	–	a-80	b-160[1]	60	a-80	–	–
Templeton,	–	a-80	d *-120	80	–	a-80	c *-120	80	–	–	–
Tisbury,	c-60	c-60	b-60	–	c-60	–	a-120	–	b-60	–	–
Topsfield,	–	b-60	d-0	160	–	a-120	c-120	40	–	b-60	–
Townsend,	c †-60	c †-60	b *-60	d *-80	c †-60	–	a *-120	d *-80	b †-60	d †-60	–
Upton,	–	a-63	d *-190	25	–	b-54	c *-190	45	a-45	–	?[2]
Uxbridge,	d-100	c *-60	c *-75	50	d-100	a-100	b *-120	80	a-100	–	–
Wakefield,	–	a-120	d-120	120	c-80	c-80	b d-260	140	–	–	–
Walpole,	–	b-80	?	–	–	–	a c-280	40	b-80	–	–
Waltham,	d-40	c-40	b c-80	160	d-40	–	a d-200	80	c-40	–	–
Ware,	–	b-100	d *-120	140	–	–	c *-120	80	b-100	b-100	–
Wareham,	–	–	d-130	70	–	a-100	c-200	100	a-100	–	–
Warren,	–	a-80	b d-200	80	a-80	–	b c-200	80	–	–	–
Watertown,	–	–	c-120	80	a-60	–	b d-200	240	–	a-60	–
Wayland,	–	–	d-40	80	–	–	c-40	80	–	–	–
Webster,	–	b-120	d-80	100	–	a-80	b c-200	160	b *-120	b *-120	–

[1] Physics third and fourth years if needed.

[2] Treats of agriculture in connection with botany.

TABLE I. — *Showing the extent of instruction in the natural sciences, etc.* — Concluded.

HIGH SCHOOL.	Astronomy.	Botany.	Chemistry.		Geology.	Physical Geography.	Physics.		Physiology.	Zoölogy.	Agriculture.
			Recitation.	Laboratory.			Recitation.	Laboratory.			
Wellesley,	–	–	d–100	100	–	–	d–100	100	–	–	–
Wellfleet,	a–40	a d–40	a d *–120	120	–	–	b d *–120	120	d–40	–	–
Westborough,	–	–	d–80	120	–	c–80	b d–200	200	–	–	–
West Boylston,	d–64	c–160	c *–120	300	d–126	–	b *–160	160	d–32	–	–
Westfield,	–	a–150	d–75	125	d–200[1]	–	c–75	25	–	a–200	–
Westford,	c †–60	d †–40	c *–40	40	d †–40	a †–60	b *–120	d–80	–	–	–
Westminster,	–	a–72	–	–	–	d–72	d–72	–	a–72	–	–
West Newbury,	–	d–60	c–80	40	d–60	c–120	a b–160	80	a–80	–	–
Weston,	d †–76	d †–76	c *–114	152	–	c †–76	b d *–152	190	–	c †–76	–
Westport,	–	–	–	–	–	b–160	–	–	a–120	–	–
West Springfield,	d–80	a–90	c–84	84	d–72	b–80	b–108	80	b–84	a–120	–
Weymouth,	–	c–80	b–80	80	d–80	d–80	a d–200	80	b–80	–	–
Whitman,	–	c–80	b c *–120	80	–	–	a d *–200	160	d–80	–	–
Williamsburg,	–	b–100	–	–	–	a–100	d–100	?	c–30	c–80	–
Williamstown,	–	–	d *–132	66	–	–	c *–132	66	c–60	..	–
Wilmington,	–	b–100	a b d–180	120	–	d–80	a d–160	40	c–80	c–80	–
Winchendon,	–	a–80	d–80	160	–	a–80	c–120	160	–	–	–
Winchester,	–	a–100	c–80	120	–	–	b d–240	80	a–100	–	–

Winthrop, ...	–	a d-200	c-117	156	–	d-100	b d-234	156	a d-200	a-100	–
Woburn, ...	–	a-80	c-80	80	–	a-80	b-80	80	d-80	–	–
Worcester: —											
Classical, ...	–	?	d-120	80	–	–	d-120	80	–	–	–
English, ...	d-100	b-160	d-120	80	d-200	–	c d-240	160	d-100 [2]	c-200	–
South, ...	d-100	b-160	d-120	80	d-200	–	c d-240	160	a-120	c-200	–
Wrentham, ...	–	a-100	b-100	d-200	–	a-100	b-100	c-200	–	–	–
Yarmouth, ...	b-36	a-48	–	–	c-36	d-36	b-72	–	a-72	–	–

[1] Geology all laboratory.

[2] Also physiology, a-120.

One's first impression from a study of the preceding table will be, I fear, that science in the high schools of this State is in a somewhat ragged condition, so far, at least, as arrangement is concerned. Of the sciences named in the table, there is not one that has a generally accepted relative position in the course, — that is, not one that is recognized as naturally precedent or consequent to any other. Take, for example, astronomy, which comes as near having a recognized place as any of the subjects. Of the 80 high schools [1] reporting a course in this, 4 put it in the first year, 9 in the second, 22 in the third and 45 in the fourth. Of the 193 schools reporting botany, 58 put it in the first year, 66 in the second, 32 in the third and 23 in the fourth. Of the other 14 schools, 13 report a botany course of two years, and it is interesting to note that there is not a possible combination of two years out of the four of the high school in which it does not occur in some one or more of these schools. For example, in the first and second years, 3; in the first and third, 1; in the first and fourth, 5; in the second and third, 1; in the second and fourth, 1; and in the third and fourth, 2. One report is indefinite.

In the case of chemistry, 2 schools report it the first year; 17, the second; 85, the third; 69, the fourth; 17, the third and fourth; 18, in all kinds of combinations of two and three years; 1, uncertain; and 16, none at all.

If the inquiry were continued, it would show similar conditions in all the sciences. This would seem to indicate that generally each one of them is regarded as an isolated study, having little or no connection with any other.

The absence, too, of science subjects from high school courses is significant.

Of the 228 cities and towns reported in Table I., Table II. will show the number that offer the specified subjects in their high school courses, and the number that do not: —

[1] The number of high schools indicates the number of different cities and towns, for the two or more high schools in certain cities, though they appear separately in the table, are counted only as one in this discussion.

TABLE II.

Number of towns and cities offering.	SUBJECTS.	Number of towns and cities not offering.
80	Astronomy.	148
193	Botany.	35
212	Chemistry.	16
93	Geology.	135
148	Physical geography.	80
224	Physics.	4
146	Physiology.	82
56	Zoölogy.	172
5	Agriculture.	223

What seems to me most surprising in Table II. is the showing in respect to astronomy and physiology. Considering the fascination that accompanies the study of astronomy, if it is rightly taught, its effect as an intellectual stimulus, its practical relation to phenomena that touch our daily life, and the wealth of its contributions to literature, it seems to me strange that it should not be a part of every high school course of study.

And as to physiology, who can doubt the value of the more general diffusion of a knowledge of the laws of health, to say nothing of the fact that this study is required by law of the State. Nevertheless, it does not appear in the high school courses of 82 cities and towns, and is apparently decreasing.

It will also be seen from Table I. that the time given to the subjects differs very much in the different schools. The following table will show this more in detail: —

TABLE III. — *Showing shortest course, longest course and the more popular range of courses in subjects specified, measured in recitation periods per year.*

SUBJECTS.	Shortest course.	Longest course.	Most popular range of courses.	Length of course that occurs most frequently.
Astronomy,	36	160	60 to 120	80
Botany,	36	360	60 to 120	80
Chemistry,	60	560	200 to 260	200
Geology,	30	200	60 to 100	80
Physical geography,	36	280	60 to 160	80
Physics,	72	600	120 to 260	200
Physiology,	30	200	40 to 120	80
Zoölogy,	12	240	80 to 120	80
Agriculture,	60	560	–	–

As to the instruction in science in Massachusetts high schools, there are two prevailing methods; one I shall call the recitation method, for want of a better term; and the other, the laboratory method. In a few cases one will find in certain subjects the lecture method attempted, but it can hardly be said to be making progress, or, where used, to be successful.

While all science teachers recognize a difference between the recitation and the laboratory methods, there are many in whose minds the distinction is not very clear. We need a definition of the laboratory method that will not only characterize it, but that will differentiate it from the recitation method, and point out where each is most effective. I believe that such a discrimination would make for the saving of a great deal of effort that is now misdirected and wasted. But, more than this, it seems to me that a better understanding in this respect would bring it about that pupils interested in science would get out of their laboratory work far more of the exceedingly valuable training that it is capable of imparting. I shall therefore venture to

offer tentatively such a definition, mainly to provoke attention to what I consider an important matter.

Experiments (using the term in a broad sense) are performed for one or the other of two different purposes: —

First. — To *illustrate* certain scientific results, laws or principles, with which the pupils are first made acquainted. Indeed, these should be called illustrations, rather than experiments.

Second. — To note effects, to discover principles and to make formulæ.

The first is a part of the recitation method. The illustrations are made by the teacher or a pupil before the eyes of the whole class, and the teacher endeavors by skilful questioning to lead all to see how these confirm the law or principles under consideration.

The second is, as it seems to me, the true laboratory method. The experiments are all necessarily individual, performed by the scholars only, and with very little aid, if any, from the teacher, for in this way only can the valuable training be acquired which this method can impart.

It will readily appear from the above distinctions that the recitation method emphasizes the acquisition of knowledge and the laboratory method discipline; that the former is better adapted to the presentation of general principles and laws, and those phases of a science that every one should know; the latter to the ascertaining of some definite facts, such as the tensile strength of a wire, the specific heat of a substance, the index of refraction, etc., and is a training well-nigh essential for those whose life work will require a high degree of skill in science.

The illustrations of the recitation method should be four or five times as numerous as the experiments of the laboratory method can possibly be, and should be supplemented also by calling attention to the various ways in which civilization uses the principle under discussion to further its ends. It should be observed, too, that the illustrations are more general than the experiments, and call for far less delicate apparatus; indeed, the apparatus for illustrating some of the most important principles can be improvised frequently out of simple things near at hand.

Lastly, it seems obvious that a course in science by the recitation method must precede any intelligent laboratory work, and that, while all pupils can profit by the former, but few comparatively are capable of the latter. To meet this necessity an increasing number of schools (about 60, at present) are introducing elementary courses in physics and chemistry earlier in their programs. The success or failure of this plan depends entirely on the teacher.

Most schools still adhere to a one year's course in each of the above-named subjects, in which they are attempting both recitation and laboratory work; with the result that they either have to withhold *all* instruction in these important branches from certain pupils, or else crowd their laboratories with pupils who had better be doing something else. It is interesting to note in this connection that, in all these cases, the time given to recitations is a reversal from what at one time threatened to be an all-prevailing "laboratory method" of teaching science. A good many of us can remember with what confident promises and great expectations the laboratory method was ushered in, a number of years ago. Every school that could, hastened to install something or other in the way of a laboratory, and in the school reports of about every city or town that had a high school can be found eulogies of the laboratory method, and sooner or later the announcement that it had been adopted. Each community felt prouder of its high school therefor, and publishers vied with each other in getting out laboratory manuals. Teachers, however, soon began to discover that, with pupils almost wholly ignorant of the subject, the laboratory method cost a great deal of time for a small result. Gradually and quietly the schools slipped into the practice shown in the columns for physics and chemistry in Table I., — of giving part time to recitations and part to laboratory work, the former in most cases greatly predominating.

One good that came of this movement was the attention paid to providing laboratories for high schools. Over 100 cities and towns in the State have well-equipped chemical and physical laboratories in their high school buildings, and 24 of them report excellent biological laboratories, in addition. About 80 others have fairly good facilities for laboratory work, particu-

larly in chemistry; and only 35 of the smallest schools in the State report none. No place would now think of putting up a high school building without providing for laboratories.

With all this, I regret to say that with pupils in general the sciences are not popular. Comparatively few pupils elect a science, unless they are obliged to do so to make up the points for their diplomas, or to meet the requirements of some higher institution they are planning to enter. I believe this is largely the fault of science teachers and their methods. They do not seem to have the skill to clothe the subject with a living interest for beginners. There are exceptions enough, however, to show what might be, with the right teacher in charge.

An obvious inference to be drawn from all this is, that natural science, as a department of high school instruction, has not been subjected to any very intelligent and thorough study, for the purpose of determining whether or not the different phases of this instruction admit of a natural or logical arrangement; or, if it has, the results have been local. Taking the State as a whole, the arrangement of the sciences would seem to be wholly haphazard. The reason for this condition is not, it seems to me, far to seek. It points back to a time when the sciences were as unwelcome innovations in high school studies as, in many cases, commercial branches now are. Admitted to the course of studies with much reluctance on the part of teachers and of the members of the school committee who chanced to belong to any of the learned professions, they were tucked into any odd corner where there happened to be a little room, and, although the prejudice seems to have disappeared, the treatment apparently still continues. It seems strange that this should be so, for during the past ten or twelve years the high school course of studies has received a large amount of attention.

It would seem, however, that of all these existing "arrangements" of the sciences in high schools there must be at the most some two or three, say, that are the best; and I think a study of the subjects and their relations will confirm this surmise.

A study of the various subjects that are classified under the head of sciences will disclose the fact that these sciences practically reduce themselves to two, — physics and chemistry. As

for the other sciences, so called, — astronomy, botany, etc., — they are chiefly applications of the principles of physics and chemistry. The concrete sciences, as I shall call them for want of a better term, present themselves to the learner in two phases, — the elementary or morphological, and the scientific. Take physiology, for example: there is a phase of this subject that deals with the number, positions and names of the various limbs, organs, bones, etc., — that is, with the forms of the parts of the body, and in a general way with the uses of these parts, — all of which is within the comprehension of pupils even in the primary schools. But when we go a step further in the subject, and undertake to teach such things as how the bony levers of the skeleton do their work, how we see, how we hear, how food is digested and assimilated, how breathing operates to sustain life, and how the nervous system acts, we are dealing with functions that require for their explanation the elementary but none the less important principles of physics and chemistry, and that can be studied intelligently only by those who are acquainted with those principles. What I have here pointed out of physiology is equally true of astronomy, botany, geology, physical geography and all the other special sciences. They all admit of a similar treatment in respect to form, number, position, etc., — things that almost any child can learn; but when it comes to those features that justify the calling of these subjects sciences, they will be found to be almost wholly the workings and results of physical laws. From this it will, I think, readily appear that to understand these workings and results, whether the motions of the heavenly bodies, or the formation of the crust of the earth, or only the lighting of a match, the student must be acquainted with the causative laws. And yet it will appear, from an examination of Table I., that this fact is frequently overlooked. For example, it will be seen that in over 50 schools physiology comes the first year, and in over 60 schools physical geography comes the first year, and in almost all of these cases the pupils know practically nothing about the fundamental laws of physics and chemistry, necessary to an intelligent comprehension of the subjects. Again and again has the writer of this report seen first-year classes in physiology trying to *"explain how we see,"*

that knew absolutely nothing of the nature of light, of the transmission of light, of the refraction of light, of the principle of the camera-obscura or of the working of the achromatic lens; again and again has he heard such a class pretending to explain some fact of physical geography that depended on the nature and action of heat, or on the effect of motion on the buoyancy of liquids and gases, or on the principle that governs the capacity of the air to absorb and hold moisture, or on the laws of inertia, or on some chemical action, — things of which the pupils in the class were wholly ignorant. It is, of course, easy to guess what in such cases the character of the instruction must be; it is the memorizing of the statements of a text-book, accepted as absolute facts, with but a vague impression, if any, of causative, underlying, inviolable laws. And yet the comprehension of these laws is the thing most essential in science teaching, for one reason, to say nothing of others, that it forms the foundation for the comprehension of the further and greater fact that there are similar inviolable laws in ethics.

When I have asked high school teachers why they do not precede the concrete sciences by a course in physics and chemistry, I usually get the answer that physics and chemistry are more difficult than the concrete sciences. This answer springs from two misconceptions: first, that the teaching of a subject in the isolated way I have described is true science teaching; and, second, that a study of physics and chemistry means a somewhat exhaustive study, requiring a large amount of mathematics, for which first-year pupils are unfitted.

It is true that physics and chemistry in their advanced stages present problems that tax to the utmost the greatest brains, that call for a degree of intellectual power that is required in few other fields of intellectual effort. But these problems are for the special scientist, and not for the use of people who have other occupations and interests, but, nevertheless, need to know something of the natural laws that govern the universe in which they live. There are even less difficult phases of these subjects that are beyond high school pupils even in the fourth year; but there are still other phases that are entirely within the capacity of any fairly intelligent first-year high school pupil, if the teacher knows how to present them.

Here is the difficulty. Time and again some superintendent has said to me, when talking of the unsatisfactory condition of science in his high schools: "I believe there should be an elementary course in physics the first year, as you suggest, — it is the natural and sensible beginning of science in the high school; but I cannot get a teacher who can teach it successfully." It must be admitted that this is true. It is a hard thing to say, but it is unfortunately true, that all the science teachers in the high schools of the State who can teach elementary science successfully can be counted on one's fingers, without going through the counters twice.[1] And yet the teachers to whom the sciences are assigned are almost always college graduates, — whatever this may signify in the way of education or discipline.

The difficulty, let me say, is not so much a lack of knowledge, perhaps, as a lack of skill, of originality, and of what may be called the teaching instinct. I can think of no better illustration of this than the very common statement that I hear from teachers: "We can't do anything in science, because we have no laboratories." No laboratories, when the whole world, within the schoolroom and without, is one grand chemical and physical laboratory where the most instructive of "experiments" are momentarily going on! Moreover, apparatus illustrating the most important principles can be easily improvised with the simple articles to be found about any school building, such as balls, wooden blocks and rulers, stones, bits of iron, pieces of string and wire, a piece of rubber or glass tubing, a dish for water, or a bicycle. In a school I visited last fall, I found one of the most enthusiastic classes in physics I have ever seen. They were studying the lifting and force pumps. They knew every principle of these pumps, and the part of gravitation in their working, and all without a laboratory. The teacher is of far more consequence than the best laboratory.

I shall later endeavor to show what, it seems to me, should be the character of elementary physics and chemistry for beginning a course in science in the high school. For the present it will suffice to say that it should be determined for the most

[1] This, after all, is not strange. The laboratory idea has so long dominated the teaching of science in high schools and in normal schools, as well as in colleges, that few of the younger teachers have ever known of any other way.

part by taking into consideration what is needed to prepare pupils to study intelligently the concrete sciences that should follow. It will be found, however, that such a course efficiently carried out will accomplish two other very desirable ends: first, it will supply the necessary preparation for real and efficient laboratory work in the third or fourth year; and, second, but even as important, it will furnish the many who are not to be special scientists with the knowledge of physics and chemistry that every intelligent person, whatever his occupation, needs to know.[1]

I should recommend, then, for the beginning of a course in science, elementary physics for a minimum of 120 periods, and elementary chemistry for 40 periods, extending through the first year, and, say, 10 weeks of the second. The aim and scope of this instruction I shall attempt to show later. I think it will appear that the knowledge of chemistry required for such a practical working basis as has been suggested is very much less than is the corresponding knowledge of physics. It would be easy, in fact, to do the whole of the needed work in chemistry in the 10 weeks of the second year.

Physiology should follow this for about 10 weeks, — 40 periods. It is easy to guess the objection that will spring up in many minds at this suggestion, for it is not yet forgotten that a distinguished committee, composed mostly of learned college professors, a few years ago quite severely condemned short courses in the sciences, and put forth the educational canon that whatever is studied in the high school should be studied intensively. While I do not in full subscribe to this canon, I would allay the scruples of those who do, by saying that the above suggestion is not so much in violation of it as it may appear to be at first thought.

To make this clear, let it be noted that the morphological phase of physiology has been more or less extensively studied in the lower grades, and the high school should leave this phase of the subject practically alone, as also, in this course, that microscopic peeking after variations of cellular structure and

[1] Since writing the above, I have been told that this is practically the plan of treating science in the secondary schools of Italy. A text-book on physics lately published in this country contains portraits of eminent scientists. Three of them are Italians; Benjamin Franklin is the only American.

of blood corpuscles. This last work is necessary for one who is to become a specialist, and will in due time find its place; but it is worse than useless for the great majority of pupils, when it comes in, to divert them from learning things that more nearly concern the proper care and use of their physical system and the preservation of health. I have already mentioned (see page 214) some of the features of this subject that should be considered, and others will readily suggest themselves; and they should all be studied in the light of the principles of physics and chemistry, which the pupils have learned. Indeed, the study in one respect is a practical and efficient review of those principles; and in return the authority of these principles will have far more weight with pupils in matters pertaining to the proper treatment of their bodies than will dozens of homilies thereon memorized from the pages of a text-book.

It will be seen, I think, that physiology treated in this way becomes a connected and valuable topic in a prolonged course in science, rather than a distinct subject; and that it receives strength from and imparts strength to the main course.

I have placed physiology immediately after the elementary courses in physics and chemistry for two reasons: first, because of all the concrete sciences it seems to me to furnish the best opportunity to review *both* of these subjects; and, second, because, as it is especially prescribed by law and is so important, it ought to reach the largest number of pupils possible, and this is the first place where it can be studied intelligently.

For the last half of the second year I should recommend botany. The time given to nature study in the grades, if it has been properly used, will obviate the need of giving in the high school much attention to the mere morphology of plants; and, even if the pupils have not profited by their earlier instruction, this phase of the subject ought not to be allowed to absorb much more attention. As already described in the case of physiology, the study should be pursued in the light of the sciences, mostly chemistry, which have preceded, and should add not a little to the knowledge of those sciences; it should deal with food supply, and how the plant eats, swallows and digests; how putrefying substances in the earth are transformed into beautiful foliage and flowers, fragrant odors and whole-

some foods. Moreover, the study should not be confined to the analysis and classification of wild flowers, but should be given a distinctly agricultural trend, especially when the occupation of the community where the school is located makes this desirable. Lastly, it should deal as far as possible with insects and birds, injurious and useful to vegetation.

Up to this point I think the science should be required, except that pupils fitting for college would probably have to be excused from botany.

For the third year I should recommend astronomy for the first half and physical geography for the last half. Except in name, these are not, as generally considered, two distinct subjects, but rather two closely articulated phases of the same subject, coming logically in the order I have placed them. As before, the pupils' knowledge of the laws of physics and chemistry should constantly be invoked to interpret all the phenomena. I would advise that, for the first five weeks or so, the astronomy work should be purely observational, without the aid of any text-book. The pupils should be required to observe and report upon the path of the stars across the sky, and the movement of those in the north that are always above the horizon; the time at which they reach a given point; the movements of the moon and planets, if any are visible, among the other stars; and the southing of the sun, as shown by the length of shadows cast by fixed objects, or by the distance a ray of its light through a fixed opening extends into the room at mid-day. Then, with a terrestrial globe for the earth and a few balls or other objects to represent the sun, moon and planets, and marks on the blackboards and walls to indicate the *directions* of the fixed stars, all these apparent movements should be accounted for. It will greatly assist in this observational work if by a little interchange of time with botany the observations can be started a week or two before the end of the second year.

In advising this work I am not speaking from theory, but from several years of actual teaching, in which I followed the plan here outlined, with the result that I could afterwards do with a text-book in 10 weeks what would otherwise have required nearer 20.

All through the year, too, every opportunity should be taken

(and the studies offer many) to do observational work independent of any text-book. This should be done not only for the value of the knowledge sought, but as a preparatory training of the pupils for the laboratory work of the fourth year. The physical geography should deal only incidentally with physiography, but should include geology and a little mineralogy. The science this year would have to be elective.

The science of the fourth year should be courses in physics, chemistry, botany or agriculture, and zoölogy, all elective. The work should now be almost wholly by the true laboratory method, and no pupil should be allowed to take advanced physics or chemistry unless he has shown a special aptitude for the subject, or an interest in it, and can be trusted to do the laboratory work faithfully without the constant presence and supervision or rather assistance of a teacher. Of course the pupil will have a laboratory manual, containing the problems to be worked out. He should do these, and make a full record of processes and results. Almost the sole duty of the teacher should be to approve the work when it is satisfactorily completed.

I fear that this last recommendation will seem very surprising to educators who have fallen into the notion that nothing a student can learn has any value unless it is recited to a teacher. That there are some who think this, is shown by the fact that some colleges have not only prescribed the subjects in which students coming to them must be prepared, but also the number of *recitation periods* in them that each student must have had. It certainly would seem that those who have favored such absurd requirements must think that any disposition on the part of a student to acquire a habit of independent study ought to be discountenanced. And yet it is not many years since it was not an unfrequent thing for young men to half fit themselves for college by independent study; and in their scholarly and other achievements later in life they will, I think, compare favorably with those who have always had a teacher at their elbows. It is to give the high school pupil, before he is graduated, an opportunity to acquire some of their independence and self-reliance in the pursuit of knowledge, that I urge the method I do in laboratory work. The chief object of this work, all agree, is training rather than knowledge; and the characteristics

just named are not so common, it seems to me, among high school graduates as to not need cultivation.

Tabulated, the course in science that I have recommended would be somewhat as follows: —

First year.

Elementary physics, required,	3 or 4 periods per week.
Other subjects,	14 periods per week.

Second year.

Elementary chemistry, 10 weeks, required,	4 periods per week.
Physiology, 10 weeks, required,	4 periods per week.
Botany, 20 weeks,	4 periods per week.
Other subjects,	15 periods per week.

Third year.

Astronomy, 20 weeks, elective,	3 or 4 periods per week.
Physical geography, 20 weeks, elective,	3 or 4 periods per week.
Other subjects,	16 periods per week.

Fourth year.

Physics, elective,	6 hours per week.
Chemistry, elective,	6 hours per week.
Biology, elective,	6 hours per week.
Agriculture, elective,	6 hours per week.
Other subjects,	14 hours per week.

By teachers who read the above recommendations the question will at once be raised: "How are our pupils to find time for this, especially during the first and second years, when it is to be required? For instance, with Latin 5 periods a week, algebra 4, history 4 and English 4 the first year, and with Latin 5, French 5, history 4 and geometry 4 the second year, where is science coming in?"

To this question I do not hesitate to say that room should be made for the science the first year by taking three periods from the English and one from the history; and the second year by taking three from the English and one from the Latin. The reduced time given to Latin will be sufficient to do all that is required in Latin, even for admission to college, unless the class is retarded by pupils who ought not to be taking the subject.

As to the reduction of the time now given in many schools to English I make the recommendation, as I believe, in the interest of English itself. Without taking time here to discuss the

question in detail, as I have done in a previous report (see sixty-seventh report of the State Board of Education), I am convinced by an examination of hundreds of high school exercises in English that we have practically gained nothing in return for all the time given to this subject, unless the general dislike of pupils for the study can be counted as progress. I believe the most effective way to learn English is in association with the acquisition of the knowledge that it is needed to express; in other words, that the place to learn English is in each and every recitation in the school that is conducted in English, supplemented by about one special exercise per week to permit criticism of written work, and suggestions on mechanical details that could not so well be made in any other way. Thus associated, the knowledge and the language will interact to the benefit of both. It is in this way that children make so rapid progress in language; and this should suggest to us how to treat our mother tongue, whatever we may do in the case of the other languages. Furthermore, I believe that what the average pupil on leaving the high school, needs is more useful knowledge and a greater interest in learning; in other words, something that will make him feel the need of language. If he has acquired this feeling, his language will probably take care of itself; if he has not, then special drill in grammar and rhetoric will do him little good.

I believe the greatest difficulty in the way of carrying out the above plan will be to find teachers who can differentiate between elementary and laboratory instruction, and can make the former sufficiently simple, thorough, comprehensive and practical; who have the skill to question the pupil into a lively interest and a clear comprehension; and — what is just as desirable — know when to stop; for a point can be spoiled by dwelling too long on it, as well as by not dwelling long enough.

The following partial abstract of an elementary course in physics is only intended as suggestive. Others may think of other ways, and doubtless better ones, of accomplishing the purpose in mind. It aims, however, to show in a general way the scope of the study, the way in which the subject may be vitalized by association with the things that are constantly going on around us, and also that an expensively equipped

laboratory is not only not needed, but may be actually misleading.

The recitations should be conducted in a room where the class may be by itself. There should be a suitable table, fitted up with a water tank, perhaps; but this is not necessary, as a large glass jar or two is for most illustrations better. While a great deal can be done without any special apparatus, yet the following are some of the things that are desirable: spring balances and a beam balance, some elastic balls, thermometers, an air pump and a few receivers, glass lifting and force pumps, pulleys, tuning forks, prisms and lenses, electric batteries, magnets and induction coils, and a few other things as special circumstances may require. In addition to these, there should be a supply of glass and rubber tubing, open-mouthed jars of various sizes, burners of some kind, wooden bars of various kinds, a bar over the table from which weights and pendulums can be suspended, and some other simple things that occasion might call for. I am not giving this, let me say, as an economical list for a school of limited resources. I mean that, if I were teaching a class in elementary physics in a school that had the best-equipped physical laboratory in the State, I would rarely take the class into it, or call upon its resources for anything more than the simple things I have mentioned above. Its fine apparatus would distract the attention of beginners from the principles, and its individual tables would be in the way.

The headings in the abstract suggest topics on which the pupils would be required to bestow careful study. I would use a text-book, from which the pupils would be asked to learn a good deal. I should prefer a good one, somewhat in advance of work actually done, from which I could select such material as I wanted. Besides the text-book, a few reference books rich in illustrations and practical problems are very helpful.

I should do very little in the way of making written records in a notebook till near the end of the course, perhaps; but I should lay much stress on correct oral expression, insisting not only that the statements of the pupils should be grammatical, but that the right words to describe the facts should be selected.

For the first month or two, in all illustrations involving the action of forces it will be well to have the pupils feel the push

or the pull by a muscular test before trying to measure it with balances.

CHAPTER I.

I. — Certain Phenomena of Matter and of Energy acting on Matter constitute the Subject called Physics.

NOTE. — Treat this briefly, for the subsequent study will make it clear. A few familiar illustrations will be sufficient.

a. The indestructibility of matter.

NOTE. — Dwell on this and the following just enough to make them clear.

b. The conservation of energy.

c. Whenever a body of matter has been set in motion, or its velocity increased or diminished, or the direction of the motion changed, energy in some form or other has been expended on the body.

NOTE. — Emphasize this principle, and impress it upon the pupils that a body could not even fall to the earth unless it was drawn by some force.

II. — Properties of Matter.

a. It has three dimensions.

Illustrations in class: Too many at hand to need specifying.

1. Units for measuring these dimensions: inch, foot, meter, centimeter, etc.

b. Divisibility.

Illustrations in class: Breaking glass. Pulverizing chalk. Sugar or salt in water. Bluing, ink, or any coloring matter, in water. The scent of flowers, musk, etc.

Illustrations from the experience of the pupils.

NOTE. — The bearing of these on the principle should always be made clear. The pupils may be allowed a day or more to find them and report, as also answers to the following questions.

What use does man make of this principle to improve his condition? What machines have been invented to utilize it?

NOTE. — The answers in this particular case are so many and so plain that it may seem to most teachers needless to press for them. But, as it is the first time that these questions are presented, it is fortunate that so many familiar illustrations are at hand, for thus the pupils can get an easy start in answering two queries that will come up at the end of every topic. They will also, for the same reason, better understand the purpose of these questions, namely, to impress the student with the debt civilization owes to the principle he is studying, and to lead him to see that, in general, machines are only ingenious devices for utilizing those principles. The student will see this far more plainly in such illustrations as grinding grain or coffee,

crushing stones, flavoring foods, etc., than in more unfamiliar illustrations of a more unfamiliar topic. The pupils should hunt up all these illustrations for themselves, aided at most only by an occasional hint from the teacher.

1. Theory of molecules and atoms.

NOTE. — Although the "atomic theory" is under fire, and will undoubtedly be modified in time, yet it seems probable that the changes will affect only the nature of the atom, and not the general assumptions of the theory, which are the only features involved in our present study. Thus treated, the theory forms a very helpful *point de départ* for beginners in physics. Treat this topic briefly, but make it clear.

c. Porosity.

Illustrations in class: Sensible pores as in wood, and insensible pores as between molecules. Account for the disappearance of sugar, salt, etc., in water, without increasing the volume. Account for the compressibility of air, etc. The Florentine experiment of 1661, etc. See Ganot's Physics, p. 7. How butter, exposed to odors, becomes contaminated.

Illustrations from the experiences of the pupils, — eight or ten.

How does man use this principle to further his ends?

Devices to utilize it.

NOTE. — Let the pupils look up the manufacture of essences, the composition of steel, and the action of mercury on gold and zinc.

d. Inertia.

1. Matter at rest cannot put itself in motion, and, if moving, cannot change its velocity or direction in the slightest degree.

2. It is the property of matter by which it resists energy, as shown in starting or stopping a body.

3. It is also the property which enables matter to transport energy, as shown by one moving body striking another.

NOTE. — This is an important property, and no pains should be spared to make its meaning clear.

Illustrations in class: Why do we find things where we leave them, and, if not, why not? Why do things thrown continue to move after leaving the hand? Why is it harder to start a body than to keep it moving? How inertia diminishes the cost of transportation by cars, steamboats, etc. Standing in a train that is slowing up, or in a wagon that starts suddenly. Why do moving bodies on the earth ever stop? Why does it require more effort to quickly start or stop a body than to do it gradually? A grindstone, a revolving globe and the wheel of a bicycle are good things with which to illustrate this.

Reports of pupils.[1]

NOTE 1. — The pupils should be encouraged to look diligently for cases to report, not overlooking the balance wheel. Toys whose action depends on the balance-wheel principle make excellent illustrations.

[1] This will hereafter be used to suggest both illustrations from experiences of pupils, and uses, machines, etc.

NOTE 2. — The above are the only true properties of matter that need special attention, so far as physics is concerned. Weight is not a property of matter at all, though usually so given. It is only the effect of the pull of gravity. Sometimes a force raises a body, but one would not speak of the matter of which the body is composed as having the property of "lift-ability." Expansibility and compressibility are obvious results of porosity, and it is enough to say that in consequence of porosity a body can expand or be compressed. Impenetrability suggests so much more error than truth, unless it is limited to the atom, that it is best to omit the term. Of other so-called properties, the treatment will appear later.

CHAPTER II.

Some Forces, and Some Effects they produce in Matter.

NOTE. — The pupil should be led to understand that the word *force* is a convenient one to use to designate those special manifestations of energy which are the causes of every push or pull on matter.

a. Cohesion, — called adhesion when between different substances.

NOTE. — These are often called properties of matter, but they are forces, or rather a force which produces in matter certain effects usually classed as "properties."

Illustrations in class: The clinging together of the molecules of any solid. Paint, glue, tenacity, hardness, etc.

Reports of pupils.

1. The three conditions of matter — the solid, the liquid and the gaseous — explained: solid, when the force of cohesion is strong; liquid, when it is weak; gaseous, when it is more than counteracted by some repelling force.

Illustrations in class: In solids, by rubbing two lead surfaces together, by tension of wires, strings, etc.; in liquids, by letting water, molasses, or oil slowly gather and drop in some way, and noting the size of the drop as it breaks away. The predominance of a repellent force in gases. First it will be well to call attention to the fact that in dipping a liquid out of a dish what is left gathers at the bottom; and then, by pumping air out of a receiver, show that what is left always expands and fills the whole receiver. This can be seen by clouding the air in the receiver with smoke, or by putting two lighted candles under the receiver, one taller than the other, and noting that the taller burns as long as the shorter. Adhesive force between solids and liquids: dip things in liquids; suspend a horizontal plate of glass by strings on the surface of water, and note the pull to lift it off. All should try this. Adhesive force between gases and liquids: pour water from one dish into another, and note the bubbles of air carried down. Two plates of glass may be temporarily "glued" together with water.

NOTE. — A spring balance may assist in some of these illustrations; but remember it is not the *exact* force, but the *fact* of the force, that should be emphasized.

2. Evidences that the force counteracting cohesion is heat.

Illustrations in class: melting ice, and changing water to steam. Melting butter, lead, etc. Place an inverted Florence flask so that its mouth will be under water; then alternately warm and cool the air in the flask by pouring warm and cold water over it, or it can be warmed by clasping the flask with the hands. Account for results.

Reports of pupils.

b. The theory of heat, — that it is caused by molecular vibrations. Difference between molecular and molar vibrations. How does this theory explain the heating of a substance by pounding or rubbing? Of a wire by rapidly bending it back and forth? Of a gun barrel or a cannon by discharging it? (The burning powder is only a small factor.) How does it explain the warming of the hands by rubbing? And so on.

1. The kinetic theory of matter. The molecules of the matter of which every body is composed are in constant vibration or motion, caused by what we know as heat energy; and by the principle of inertia they can transmit this heat energy. At ordinary temperatures the vibrating molecules: —

(1) In solids, are always within the firm grasp of cohesion.

(2) In liquids, keep more or less slightly within the reach of cohesion.

(3) In gases, are driven far beyond its reach; hence gases would expand indefinitely, if not restrained in some way.

Illustrations in class: Place a stopple lightly on the mouth of a flask (a metal flask is safest) partly filled with water, and drive it in with a tap of a hammer, then heat till steam expels the stopple. Lead the pupils to see that it was driven out just as it was driven in, only in the case of the hammer the molecules acted in mass, while in the other case they pounded individually. The way this works in the cylinder of a steam engine. Conduction of heat.

2. In all kinds of matter the moving molecules are constantly clashing and driving one another back and forth in all directions. If, however, taking water for an illustration, surface molecules are knocked upwards, they meet little in the thin air to drive them back, and most of them stay up and mingle with the air, aided by adhesion. In this way water and other liquids evaporate. When the air above becomes "saturated," then as many molecules of water are knocked back as are driven up, and evaporation ceases.

In this same way air penetrates water; air and water penetrate wood, rocks and other solids. It is probable, too, that solids lose some of their surface molecules in the same way. This, too, is the explanation of the following.

3. Capillary attraction.

Illustrations in class: The usual ones, with small glass tubes and glass plates. Set up a dry piece of wood with the end in water. Others *ad libitum*.

Reports of pupils.

c. Other special results of cohesion and adhesion.

1. Ductility and malleability.
Illustrations in class: Various metals.

Reports of pupils.

2. Elasticity.
NOTE. — Emphasize this effect of cohesion.
Illustrations in class: Too many available to need specifying.

Reports of pupils.

3. Osmose. Due to adhesion, and the principle stated in paragraphs 4 and 5.
Illustrations in class: The way sap rises in plants.
4. Friction.
NOTE. — Friction is usually attributed to unevenness of surface, but it is undoubtedly due in some degree to adhesion.
Illustrations in class: Familiar cases, as drawing a sled; waves produced by wind; current in midstream, as compared with that nearer shore, etc. A piece of board and pieces of zinc and other sheet metals, all of the same size, fixed to slide on other surfaces, and equally weighted; place them one at a time on a smooth board, three or four feet long; raise one end of this, and note the angle at which each slides. Try on other surfaces. Draw loads on horizontal surfaces with spring balance. Test same load on different-sized bases. Friction the great destroyer of energy in machines; uses up a large part of the power in the best engines. How used to stop trains, etc.

Reports of pupils.

d. Gravitation.

Illustrations in class: Plenty at hand.
NOTE. — There are plenty of familiar illustrations to be found, but the point to be emphasized is, that a body from a state of rest cannot "fall" unless some force pulls or pushes it down, any more than it can ascend; and that the resistance one feels when lifting a body, and the downward pull when carrying a body, is due to a force pulling down. Explain what "down" means.

Reports of pupils.

1. Weight, — the pull of gravitation on a body at the surface of the earth.
(1) Why bodies of the same size do not always weigh the same. Distinguish between mass and volume.
(2) How mass is measured. See arithmetic.
2. Buoyancy of liquids.
Illustrations in class: Let these at first be illustrations that appeal to the pupils' senses, as by having them hold stones suspended in air, and then in water till they understand that in the latter case some force is helping them lift.
(1) Cause of the buoyancy.

Illustrations in class: Put, say, a pound weight in one pan of a balance (or suspend it from one end of a bar which is balanced at its centre); the weight descends unless held up by a force of 16 oz. Put a 4-oz. weight in the other pan; the heavier weight still descends, but can be held up by a force of 12 oz. Explain apparent loss of weight. Next sink a block of wood in water, and release it; it rises to the surface. Bring out that the block displaces its own bulk of water, but that gravity pulls more on any volume of water than on the same volume of wood, and so pulls the water under the wood, and the wood is forced up, on the principle of the 4-oz. and the 16-oz. weights above. Next suspend a stone in water; note its apparent loss of weight, and account for it in the same way, except that gravity pulls stronger on the stone than on the same volume of water, hence it is only partly held up, as the heavy weight by the light weight in the case above.

(2) A floating body displaces its exact weight of water, or of whatever liquid it floats in.

Note. — The usual method to show this is to catch and weigh the overflow of the water, and compare with weight of the body. The results, however, are rarely exact, and reason has to be called in to correct errors. In my opinion, it is better to begin with "reason."

Illustrations in class: Hold out a weight of some kind (let the pupils do this), and show that if the supporting force is greater than the pull of gravity the weight goes up; if less, the weight goes down; and that it can remain at rest only when the two forces are equal. This can also be shown by hanging the weight to a spring balance; it comes to rest when the tension of the spring is *just* equal to the pull of gravitation. Next take a floating body; the water it displaces must have been held up by the water under it to exactly the amount of its weight, or else it would have been pushed up or pulled down. This upward push is due to gravity, and the water cannot change it; hence it must be the same on the floating body and must equal the weight of the floating body, else this would sink lower. Next suspend a stone in water at any depth; previously the water below the stone supported a column of water reaching to the surface; now it supports that same column, except where it is displaced by the stone; hence it has left a force *exactly* equal to the weight of the displaced water to push up on the stone. The "overflow," or any other illustration, may now be given to confirm the above.

Note. — Have the pupils see that the same law is at work in all the above illustrations, and that nations use the same principle in floating their navies that a grocer does in weighing out a pound of tea.

Reports of pupils.

3. Density.

Illustrations in class: Weight of a cubic inch (or cubic centimeter, or any volume) of each of several substances, as lead, putty, wood, water, etc.; equal volumes, but not equal masses or densities. A pound (or gram) of the same substances; equal masses, but not equal volumes or densities. Their densities may be altered by heat or cold, but cannot be made equal.

Explain and use the following formulæ: —

$$m = dv; \quad d = \frac{m}{v}; \quad v = \frac{m}{d}.$$

(1) How density is affected by heat and cold.

Illustrations in class: Expansion and contraction of air. See previous illustration with a Florence flask, *a* 2. Fit the flask with glass tube passing through a stopple, and fill it with cold water to a point in the tube just above the stopple; warm the water. The thermometer. Heat a stout piece of wire about a foot long, support it horizontally between two vertical surfaces pressing on its ends, and let it cool. Others *ad libitum*.

Reports of pupils.

(2) Specific gravity, or specific density of solids and liquids.

NOTE. — In finding specific gravity, most books lay so much stress on "weighing in air" and "weighing in water" that pupils often become possessed of the notion that this is an essential part of the process. I trust the following steps will avoid this.

(3) A number of problems like the following: —

A cubic foot of water weighs 62.4 lbs., and a cubic foot of granite 135.36 lbs.; what is the S. G. of the granite?

A certain amount of alcohol weighs 12.27 oz., and the same volume of water weighs 15 oz.; what is the S. G. of the alcohol?

What is the S. G. of a substance that weighs 2.723 gm. per cubic cm.?

Note that in the decimal system the number that expresses density also expresses the specific gravity.

(4) Specific gravity of liquids: Fill a bottle with ice water as near 4° C. or 39° F. as possible, and put a rubber band around the neck to mark the surface. Find the weight of the water. Then substitute for the water such liquids as salt water, vinegar, alcohol and kerosene oil, and find their specific gravities.

NOTE. — Have all the pupils do these problems individually, keeping the results to themselves till all are ready to report. Pursue the same course with the following.

(5) S. G. of solids denser than water. Take, say, an irregular piece of stone, and present the problem to the class in this way: "We can find the weight of this stone, but how can we find the weight of an equal volume of water?" When this is answered, the problem is easy. Have each pupil work out a number of cases.

(6) S. G. of solids less dense than water. By means of wire loops hold a foot ruler vertically in water, and note the number of inches it sinks, — let us suppose 7½; then its S. G. is $\frac{7\frac{1}{2}}{12}=\frac{5}{8}=.625$. Do the same with other regular strips of wood, such as mouldings and rods.

(7) The same, — irregular masses. Let the pupils first see that the problem is to find out how much weight, including its own, it takes to sink it.

(8) Instruments for determining S. G.

(9) The use of specific gravity.

NOTE. — Emphasize this.

4. Pressure of the air.

Illustrations in class: The usual ones, with the air pump and receiver. The "sucker." Fill a glass to the brim with water, cover with a piece of

wet paper; holding the paper on, invert and remove the support from the paper; explain result.

(1) Pressure of the atmosphere, due to gravitation reacting on the kinetic energy of the molecules. The molecules of the air at the sea-level are pounding on all surfaces with a force of about 14.7 lbs. to the sq. in., or 1,033.3 gm. to the sq. cm.; but it is gravitation that holds them to their work. The sum total of the force of their blows on any area cannot exceed the weight of a column of air the height of the atmosphere, pressing on the same area.

At this point it should be made clear that, although the hotter a gas is the more violently its molecules vibrate and strike, yet if free to expand it will do so, and become less dense; hence fewer molecules will strike a given surface, and the pressure will not be increased. So by compression, which increases its density and brings more molecules into action, cold air may be made to exert more pressure on a given surface than hotter air that is less dense.

(2) The amount of pressure at the sea-level is subject to slight variations. The cause of winds. See *d* 2, note.

(3) Torricelli's experiment, and what it teaches.

(4) Barometers.

(5) Lifting and force pumps.

(6) The siphon.

(7) Balloons; compare with wood rising in water.

5. The law of universal gravitation.

(1) The center of gravity.

(2) Equilibrium.

Note 1. — Make it clear that the force required to overturn a body depends on the height that its center of gravity has to be raised in the process. This can be shown by a piece of plank, first set on edge and pushed over, and then laid flat and turned over.

Note 2. — It will be seen that I have omitted with the last five or six topics some details which by this time must have become familiar to all who have had the patience to go through this abstract. At this point I would suggest that one or two lessons be given to a review, which had best be conducted thus: Take some familiar operation, say, the starting, moving and stopping of a train of cars, and have the pupils try to find out and explain how many of the preceding principles are involved.

As the study continues, more mathematical formulæ and illustrative problems should be introduced; and I would suggest that the topics be taken in somewhat the following general order: —

The laws of motion. Momentum; mo. $= mv$. Work; units for measuring it. Laws of falling bodies; meaning of: $g = 32.16$ ft. or 980 cm.; $v = gt$; $s = \frac{1}{2} gt^2$; $t = \sqrt{\frac{2S}{g}}$; $t = \frac{v}{g}$; $s = \frac{v^2}{2g}$; and $v = \sqrt{2gs}$. Energy; $e = \frac{mv^2}{2}$. Relations of pressure, density and volume of gases. Transmission of pressure by liquids and gases.

Of course the above topics involve a good many sub-topics, most of them treating of machines for utilizing the principles, as levers, pulleys, water wheels, etc. Lastly, and as fully as time permits, the more special subjects, sound, heat, light, and electricity, should be treated in the order given.

If such a course as the one suggested above, be given and supplemented in the way previously described, I do not believe that European educators, visiting us, would again have occasion to speak of the "laboratory work" of our high schools, as appearing to them very elementary.

Respectfully submitted,

J. W. MACDONALD.

DEC. 31, 1906.

Appendix C.

REPORT OF WALTER SARGENT,

AGENT OF THE BOARD

FOR THE

PROMOTION OF MANUAL ARTS.

Constructive Work in Schools without Special Equipment.

REPORT

To the State Board of Education.

I submit herewith the twenty-eighth annual report of the agent for the promotion of manual arts.

On account of the notable increase in constructive work in public schools, much of my attention during the past year has been given to observing that work, particularly in schools without special equipment.

Conferences of supervisors of the manual arts have been held at the following places: Fitchburg, Framingham, Springfield, Worcester, Ayer, North Adams, Hyde Park and Newburyport. Most of these were held in connection with the State institutes.

At these conferences constructive work and working drawing were the chief topics of discussion. This report sums up some of the points of these discussions, and the results of observations made in schools.

Those familiar with public education seem to have agreed that the question whether muscular activity and the constructive instinct shall or shall not be a factor in the education of children is not one to be determined by school boards. Their only option is to decide whether this activity shall take the form of mischief-making or of constructive and industrial work; whether a large part of the effort and patience of teachers shall be spent in controlling it, or whether the energy thus seeking outlet shall forward and not hinder educational progress.

Thus the center of discussion regarding constructive work in public schools has passed from the question as to whether it should be a recognized factor in the curriculum, to the query as to ways and means.

A town large enough to employ a special instructor in the manual arts, and to afford a full equipment in the line of tools,

supplies and room, can readily work out methods and a course for this particular subject. For the schools of small towns and rural districts, however, the problem is more difficult. Usually there can be no special teacher, and material and tools must be found by teachers and pupils.

As a result of these conditions, while abundant interest is manifested, constructive work in schools without special equipment is too often a desultory doing of miscellaneous things in some convenient medium, as leather, metal or wood. There is seldom such comprehensive understanding of the subject as will guide the teacher in his selection of work or his judgment of results; and an organic relation of the manual work to the school course as a whole is lacking.

In the consideration of constructive work in schools without special equipment it is particularly important to state as simply as possible the aim and scope of such work in public schools of whatever sort, and to show the relation which particular problems should bear to its general purpose. A standard of value will then be available, to which specific problems and methods may be referred. Individual exercises will then become parts of a broad scheme, and not merely a succession of unrelated activities. To formulate such a statement is the purpose of this report.

The aim of constructive work in schools may be considered as threefold: —

I. As one means of exercising that motor activity which is now recognized as a necessary factor in education.

The following quotations,[1] culled from an address by Dr. Thomas M. Balliet, suggest the function of hand work in brain development: —

> The schools have it in their power, in effect, to furnish brains to pupils, if they develop into functional activity cells which otherwise would have lain forever dormant. . . .
>
> The cells of the brain which we need especially to consider in connection with manual training are of two classes, — sensory and motor. The sensory cells receive the different impulses which come from the special senses, and those which come from the skin and the internal organs of the body; the motor cells generate the nerve energy which

[1] "Manual Training: its Educational Value." An address delivered before the Massachusetts Teachers' Association at Worcester, Mass., Nov. 30, 1895.

causes the muscles to contract. . . . Nerve cells grow and develop like any other part of the body, — through nutrition and functional activity. The visual cells develop through seeing, the auditory cells through hearing, and so with the rest. The visual area in persons born blind or blinded in early life remains in a rudimentary condition through life. . . . The exercise of the special senses is necessary for the proper physical growth of the brain. It also follows that sense training, in so far as it is a physical process at all, consists not in training the external sense organs, but in developing their brain centers.

Like the sensory cells, the motor cells develop through exercise. It is the function of these cells to generate nerve energy to contract the muscles, and thus to produce and to co-ordinate muscular movements. Voluntary muscular movements have therefore the effect, not only of exercising the muscles involved, but also of calling into activity the motor brain cells which control them. Indeed, these motor cells cannot be made to act and develop except by means of the muscles; and muscular exercise, whether in the way of ordinary labor, of recreation, of gymnastics or of manual training, is absolutely indispensable to the proper development of the motor area of the brain. . . . Moreover, this exercise of the motor cells must come during the period of brain growth if it is to be most effective, and the lack of such exercise during this period is a matter of very serious consequence to the brain. . . . Physical energy implies a good motor brain area. The man of energy, must be a man of brains no less really than the man of thought, and physical laziness implies a deficiency in the motor part of the brain. . . . Now, it might be argued that manual training is not necessary for the development of the motor centers in the brain, on the ground that gymnastics and out-door physical exercise are quite adequate to accomplish it. The answer to this objection is the fact that gymnastics and out-door physical exercise in general appeal almost exclusively to the fundamental muscles and their brain centers, and rarely to the accessories. Nothing short of manual training will reach effectively the important brain cells governing the fine motor adjustments of the muscles of the hand. . . .

The inner surfaces of the joints, the muscles and ligaments are supplied with sensory nerves, which conduct to the brain sensations of movement, which form the basis of direct motor perception, just as sensations of light and sound form the basis of the perception of color and tone. These motor percepts are developed into motor ideas, which, like ideas of light and tone, enter into the higher thought products, and become a part of the warp and woof of the mind's organized body of knowledge, — the only kind of knowledge which is power.

Motor ideas are developed by all forms of muscular movement with any part of the body, — by ordinary work, by play, by gymnastics and by manual training. All these are, therefore, means of motor training. But the large motor area in the brain, governing the infinitely varied

and complex movements of the hand, shows that this organ is by far the richest source of motor ideas, and especially that portion of it little appealed to either in gymnastics or in ordinary unskilled labor, namely, the five fingers and their many sensitive muscles and joints. The hand is therefore a special sense organ, somewhat like the eye and the ear; and an untrained hand is in many respects as unfortunate a limitation as an untrained eye or an untrained ear.

When motor and sensory training are co-ordinated, there results a habit of doing in response to impressions. Such co-ordination constitutes a fundamental condition of efficiency. The results of sensory training alone are likely to be fleeting. Ideas received through the senses and worked out through the muscles into material form are lasting. Teaching, which presents the various studies of the school program by appealing to the motor activities as well as the sensory avenue of approach, produces impressions which are vivid and permanent. Ideas thus obtained are not fleeting impressions of arbitrary facts, but stable assets of knowledge. When an idea is received through the senses, and then expressed through the muscles, the circuit is complete.

If new ideas are to take their places as parts of an apperceptive background, the necessity of working them out through the muscles as well as receiving them through the senses has become realized, and is producing revolutionary changes in methods of teaching.

A child now learns that two and two make four, not only by hearing the words and seeing the symbols, but by putting two things with two others, and seeing that they do make four. The table of square measure, with such statements as that one square yard contains nine square feet, is not received primarily on the authority of the text-book, to be applied to the solution of problems while still unproven and unimaged. Children measure and mark out a square yard, apply a square foot to it, and thus discover beyond a possibility of doubt that the area contains nine such squares. Such a discovery becomes a working asset, which the book confirms rather than announces. It has awakened the activity of the whole thickness of the gray matter involved, and not merely one set of cells. One who has learned the table of long measure by rote and without any

appeal to motor activity may know how many feet a rod contains, but cannot image distances in terms of rods with such definiteness as one who himself has measured rods. Children who construct a sun dial or who plot the course of a shadow by marking its position at the same hour on different dates are gaining a knowledge of the varying inclination of the sun's rays which can never come by charts and explanations.

The aid of motor activity has been successfully invoked to secure clear and forceful expression in language. Once an attempt was often made to teach children to express the sense in reading mainly by taking notice of punctuation marks and by imitating the voice of the teacher; or — a more reasonable procedure — the writer's ideas were emphasized by appeal to the child's understanding. Now upon occasion a selection is read to the children, and they act it out in simple but vivid dramatization. Those who are the actors are wholly absorbed in what they are doing. For the time they are the individuals in the story. The parts of the room are the scenes and the narrative is proceeding by its own momentum. Those who are in their seats as audience are scarcely less absorbed. They feel in muscles as well as mind the movement of the events described. The subsequent reading is given with a fineness of inflection and a vividness of narration unattainable by appeals to intellectual appreciation without motor co-operation. The struggle of the instructor to get ideas into children's heads by information is replaced by a sane process of getting them into their experiences.

It is not at all necessary that every fact in the same category be learned by this somewhat slow process of discovery, or every idea be set forth in material form. Motor activity, once having been awakened by the ascertainment of certain facts, or exercised in a particular field, now responds to sense impressions from similar sources, and the whole brain activity is aroused. Thus an occasional appeal to complete motor expression suffices to keep a proper balance of development. It is of great importance, however, that this balance should exist. If the intellect is to deal competently with abstract ideas, the hands must have had experience in dealing with the concrete things connected with such ideas.

This necessity of a proper balance and co-ordination of sensory and motor activity in any teaching which is to be effective has resulted in much experimentation to discover the most practical methods. Constructive work as a means of expression in connection with other school studies is proving itself to be a practical way by which the teacher may secure such co-ordination. Thus constructive work as one way of teaching offers important aid to the grade teacher. On the other hand, the specialist, recognizing and advocating the advantages of constructive work as a separate study, and discouraged because in some instances he finds it impossible to secure special time and equipment for the subject, often discovers that much of what he seeks can be gained through problems which are chosen primarily not for their place in a sequential course in manual training, but as a means of better teaching in other subjects. This aspect of constructive work affords the greatest opportunities for introducing it into schools without special equipment. The following will serve as examples of this use of constructive work in connection with other school studies, and made with simple material: —

Primary Grades. — Indian wigwams and canoes; Dutch windmills; historic houses; means of transportation; occupations; the school and home garden; and similar work suggested by history, geography, language, nature study and arithmetic.[1]

Grammar Grades. — Portfolios; calendars; note books; models of boats, representing those of various nations and ages; Norwegian skees; mechanical toys, as water wheels, bridge models, windmills, kites, etc., illustrating principles of elementary physics; cases for mounting insects; bird houses, etc., in connection with nature study.

It proves to be not a new study crowding others, but a factor which saves time and makes results more valuable. In it lies one possibility of simplifying the crowded curriculum. Therefore, in schools without special equipment constructive work of some sort is necessary to the best teaching.

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[1] For helpful detailed suggestions, see article on "Construction Work in the Primary Grades," by Miss Julia Cecilia Cremins, Year Book of the Council of Supervisors, 1904, page 47. "The Primary Course of Study in the Arts," by James Parton Haney, Year Book, 1905, page 35. "An Outline in Garden Study," Miss Bertha M. Brown, Hyannis, Mass.

II. The development of industrial intelligence.

In a recent document,[1] Mr. George H. Martin, secretary of the Massachusetts Board of Education, uses the term "industrial intelligence," which he defines as follows: —

> Mental power to see beyond the task which occupies the hands for the moment, to the operations which have preceded and to those which will follow it, — power to take in the whole process, knowledge of materials, ideas of cost, ideas of organization, business sense and a conscience which recognizes obligations. Such intelligence is always discontented, not with its conditions, but with its own limitations, and is wise enough to see that the more it has to give the more it will receive.

Industrial intelligence as thus defined is more than power to deal readily with figures and words; nor is it the necessary accompaniment of such power. Ability to estimate, select and shape material, to produce a desired result exactly as planned, is gained only through actual estimating, selecting and shaping.

Where constructive work has formed part of a child's training from the beginning, so that he realizes as a matter of course the distance that intervenes between the idea of a thing and that thing completed, — a gap that must be bridged by intelligently sustained effort, — and where he has had repeated experiences in performing the successive processes with his own hands, there industrial intelligence will usually be developed.

The lack of such intelligence is frequently brought to light by the coming of manual training into schools where children have not been accustomed to constructive work either at home or at school. Under such circumstances it is not uncommon for a boy to ask and receive permission to undertake the making of a difficult model, such as a table, when he is ignorant of the time and labor necessary to produce a piece of excellent workmanship. He finds, often to his astonishment, how long it takes to shape a single piece of wood so that it will fit into its place in a piece of construction. Frequently as a result of this discovery interest in the work is lost, even if the work is not abandoned. Part of the fault may rest with the instructor and part find its reason in the mettle of the boy; but much

[1] Report of the Committee on Industrial and Technical Education, Massachusetts Senate Document No. 349, page 5.

blame is to be attached to lack of previous development of industrial intelligence.

A boy who has had experience in constructive work approaches such a problem in a different and soberer state of mind. He knows by experience something of the time required to shape and assemble the parts of a piece of construction. Hand and brain are informed by memories of having done such things. He knows that weeks and possibly months must elapse before the object can be completed. He possesses also the pleasant confidence that with persistence, with which he is already familiar, he will finally produce the thing. To develop such temperate, sane confidence in approaching a difficult piece of work should be one aim of education. Constructive work may be made an effective means to this end. The most desirable sort of confidence is not that which comes simply from much information regarding how a thing should be done, but from experience in having done that kind of thing. Not only is it true that "we know with what we have known," but also that "we do with what we have done."

The character of constructive work which children can do with advantage varies greatly with different ages. In primary grades it should be mainly working out ideas in easily managed material. The imagination of small children finds ready manual expression in moulding forms in clay, in building houses, barns, etc., with blocks, and in placing or moving about objects which to them represent animals and people; in cutting forms from paper and in making shapes with sand. Their delight is chiefly in the activity of doing, rather than in the contemplation or use of the resulting form. They can learn little of careful plans and elaborate processes. They are impatient of intermediate steps and refractory material, but gain valuable ability to express their ideas directly in pliable material.

Work for older pupils in the fourth, fifth and sixth grades may with advantage involve more planning and a greater number of steps before the result is accomplished. This is possible because the finished product is more of an incentive to children of this age. They like garden work and gifts and toys. Such objects as Christmas presents, to be carried home and given to friends, — mechanical toys, as windmills, bows and arrows,

boats, etc. They take some pride in good workmanship, but the processes must still be simple. It is more difficult for them to work from exact patterns than in a sort of free-hand manner from objects.

In the advanced grades, the seventh, eighth and ninth, industrial intelligence can be most directly developed. The particular problem chosen should be interesting to the children. The way in which it is worked out is of great importance.

The best order of work in making an object is in general as follows: —

1. A clear idea of the thing to be made. This should be expressed by a simple sketch with pencil or in some pliable material, to show about how the object will look.

2. A knowledge of how to go to work to make the object, shown by exact patterns and a list of the kinds and amounts of necessary material. This is what a contractor commonly calls "figuring on a job." This should be done before any material is cut or used.

3. The skilful making of the object.

These three stages should be followed in all constructive work in upper grammar grades. If a definite idea of the appearance and structure of the thing to be made, accompanied by exact dimensions and patterns and calculation of materials, is required before cutting of the final material is allowed, habits of effective workmanship are developed, and aimless, planless work is discouraged. The objects chosen should be those whose use will be readily understood by the children, and in which they will be interested.

Wood, cardboard, raffia, metal and leather are excellent material for these grades, and require no more equipment than can usually be mustered in most country towns. Shelves, bookcases, boxes, Christmas gifts, objects in leather,[1] work baskets and waste baskets from cardboard, are problems easily designed and worked out. In some country schools such civic problems as the beautifying of the school premises have proved practical; orderly arrangement of the school entry, shelves for dinner pails, garden plots, etc. The making of a well-drained path gives interesting opportunity for the study of road construction,

[1] See "School Art Book" for December, 1905, and December, 1906.

which has now been reduced to a science, and also for the study of the artistic problem of beautifying the school yard.

In a few schools annual sales of objects made of leather, metal, raffia and wood have been held, and have been profitable enough to furnish a supply of material for the following year.

The fact that the objects have a market value has increased the interest of the children in making careful plans, in obtaining a knowledge of processes and in searching for designs of high artistic quality. They desire to produce work sufficiently excellent to be accepted for the sale.

Closely related to constructive work is its necessary language, — of working drawing. This was once taught separately, but working drawing that is not the outgrowth and accompaniment of actual construction is of doubtful value. It frequently degenerates into dictation exercises in instrumental drawing, the results of which, as seen in exhibitions, easily deceive the casual observer into thinking that those who made such drawings must have had a practical knowledge of the principles of working drawing.

In industrial life by far the larger part of working drawing is, in its first stages, free hand. In this condition it is frequently turned over to a draughtsman to be rendered instrumentally, as a writer turns over his scribbled and interlined manuscript to a stenographer. The most practical ability in working drawing is power to show adequately, by rapid, free-hand sketches, the construction of objects. Many students who have done much instrumental drawing realize with surprise, on entering a technical school or workshop, the paramount industrial value of ability to draw free hand. When by a sketch one can place before himself and others many ways of doing a thing, he is enabled to make comparisons, and more easily to choose what is fittest; for in his sketches he has already tried many schemes without too much waste of time and costly material. This is a direct aid to industrial intelligence.

It follows, therefore, that constructive work and working drawing in schools without special equipment should not be slipshod because tools are few and materials simple, but should be carried out in a workmanlike manner, with sketches, exact patterns, calculation of material and best available workman-

ship, in order that industrial intelligence, for the lack of which other intellectual attainments do not fully compensate, may be exercised.

III. Development of appreciation of beauty in constructed objects.

Development of appreciation of beauty in objects ornamental or utilitarian is a source of high pleasure, which is limited only by the degree of its development. It is not so largely a matter of formal training of the eye and intellect as was once supposed. Such training, if unaccompanied by acts of definite choice, based on growing likes and dislikes, is likely to make no permanent valuable impression.

Appreciation is developed partly through much interested choosing between things better and worse. One may see all kinds of wall papers and hear much concerning the respective merits of their designs and color schemes, but until he is called upon to choose one for a particular environment his full mental activity is not aroused nor his appreciation wholly awakened.

It is developed partly also by shaping forms and mixing colors with one's own hand. One who has carved a spoon or a bowl in wood, or hammered it in metal, has not only opened up a source of keen interest in fine shapes, by choosing from among many possible patterns the best as his model, but his hands, in shaping material into the form of the fine pattern, have aided him to a more complete enjoyment of it than would have been possible without this motor assistance.

A high capacity for enjoyment of beauty in constructed objects is seldom developed alone by seeing beautiful things, without ever having tried to produce them.

The masterpieces of beautiful constructive work have been conceived at a time of spiritual exaltation and delight. The real value of their beauty is that it can awaken again and again a kindred pleasure in the appreciative beholder. Thus they become a joy forever. The fellowship of effort which results from one's attempts to make beautiful things is a potent factor in bringing one's delight as a beholder near to that of the producer.

Therefore, even in schools without special equipment constructive work should never be ugly, but should be the most beautiful of its sort. The children should see many examples

in actual material or in pictures, and discuss these from the standpoint of beauty as well as utility.

To summarize these points, the threefold aim of constructive work in public schools, towards the accomplishment of which the necessarily varied and informal exercises undertaken in schools without special equipment should tend, is: —

I. To make the results of all teaching more permanent and valuable by introducing the element of motor activity, which is a necessary factor in intellectual development, and therefore must be recognized in any efficient scheme of public school education.

II. To develop industrial intelligence, *i.e.*, habits of efficient, thoughtful, well-planned economical doing, and a sane confidence begotten of experience as well as of information.

III. To develop appreciation of beauty and excellence in constructed objects, and establish true standards of judgment.

These are the standards of attainment by which constructive work may be tested. Particular courses, problems and equipment are valuable only in so far as they aid toward these ends. A teacher who appreciates the fundamental purpose of constructive work will generally find, in the ordinary circumstances of school and home activities and environment and in local industries, abundant opportunity to secure the main advantages of constructive work, even without special equipment.

In response to many inquiries regarding the essentials of mechanical drawing, the following report on that subject, compiled by a committee of the Boston Manual Training Club, is here given: —

ELEMENTARY MECHANICAL DRAWING.

One quarter of the time devoted to drawing should be given to mechanical drawing.

Such drawing should be correlated with any manual training work in the school.

As the power to produce working drawings free hand is of great value, rapid sketching of views is advocated, as well as finished instrumental work.

If possible, confer with manual training teacher, and avoid useless technicalities.

Fourth Grade.

1. Shapes and names of objects (plane figures.)

(*a*) Teacher holds up objects, and pupils name.

(*b*) Teacher names object, and pupils sketch on blackboard and paper.

2. Measurements of objects (of even sizes) such as will involve no smaller measurements than ¼ inch (cardboard to be previously cut to such sizes).

3. Drawing objects to correct measurements (no dimensioning). (Step 2 to precede step 3 by only a short time.)

Instruments. — Ruler[1] (graduated to ¼ inch), pencil, pasteboard, circle marker or compass attachment.

Terms. — Length, width, horizontal, vertical, oblique, parallel, angle, right angle, square, rectangle, circle, radius, center, triangle.

All objects drawn should be cut out with scissors. If this is impracticable, then the drawing should be shaded so that the figure will be prominent, rather than the lines.

Completed work should be returned to the pupils after inspection.

Fifth Grade.

1. First few lessons to be a review of fourth-grade work.

2. Pupils to make working drawings from objects (plane figures). Teacher working at blackboard.

3. Pupils to make objects from their completed drawings, the blackboard drawing being erased.

Instruments. — Same as in fourth grade, except that ruler should be graduated to ⅛ inch.

Terms. — Triangles (equilateral, isosceles, scalene, right), hexagon, semicircle, diameter, circumference. Pupils should recognize object in whatever position held.

If possible, apply appropriate decoration to objects made, thus correlating with design and color work.

Completed work should be returned to the pupils after inspection.

Sixth Grade.

1. Making and dimensioning drawings, involving radius, diameter and fractions (plane figures).

2. Simple geometric problems: bisecting a line, bisecting an arc, erecting a perpendicular, inscribing an arc of given radius within a right angle. Study developments of simple solids, such as cube, rectangular box, square pyramid and triangular pyramid. Construct these simple type solids or similar articles, such as models of the pyramids or Bunker Hill Monument, candy boxes, etc.

3. Use paper and cardboard (we advise knife work in wood, where possible).

Instruments. — Same as in fourth and fifth grades, except that ruler should be graduated to 1/16 inch.

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[1] School rulers should have one quarter of an inch blank at each end and numerals marked over division line.

Terms. — Octagon, diagonal and diameter (of polygons), arc, quadrant, trefoil, quatrefoil.

Completed work should be returned to the pupils after inspection.

Seventh Grade.

1. Copying working drawings of two views in connection with the object, using drawing board, T square and triangles.

2. Reading of simple working drawings of two views, and subsequent study of objects represented.

3. Much sketching, occasionally followed by the making of finished drawings: top and front view, top and side view, or front and side view. Explain and illustrate relation of views.

4. Simple free-hand lettering.

5. Geometrical problems: construction of ellipse and comparison with oval; and other problems applicable in construction work.

6. Opportunity should be given pupils to design geometric borders and surface patterns, applicable in manual training work.

Instruments. — Drawing board, T square, triangle, ruler (graduated to 1/16 inch), pencil, compass attachment.

Terms. — Length, width and thickness, major and minor axis, focus and foci, perimeter.

Completed work should be returned to the pupils after inspection.

Eighth Grade.

1. Constructing simple geometric forms mechanically, illustrating more than one way.

2. Letters and lettering, large and small, free hand and mechanically.

3. Border and geometric patterns, drawn instrumentally.

4. Sketches (three views where necessary) of simple solids, joints and familiar objects, possibly manual training models, occasionally followed by working drawings, to include drawings and drawings made to scale.

Instruments. — Same as in seventh grade.

Completed work should be returned to the pupils after inspection.

Ninth Grade.

1. Geometric patterns, drawn instrumentally.

2. Working drawings of familiar objects.

3. Simple machine details, simple house plans and elevations.

4. All drawings to be dimensioned, some being scale drawings, including sections and section linings.

Instruments. — Same as in seventh grade.

Completed work should be returned to the pupils after inspection.

The committee who compiled this report on the essentials of mechanical drawing in elementary schools comprised the fol-

lowing men: Clarence M. Hunt, Francis L. Bain, John C. Broadhead, Edwin R. King, Frank M. Leavitt, Alexander Miller, Josef Sandberg, Joseph T. Whitney. Their recommendations are worthy of careful consideration by teachers of mechanical drawing.

WALTER SARGENT.

DEC. 31, 1906.

Appendix D.

To what Extent are Drawing and Manual Training related?

BY

FRANK M. LEAVITT,

Assistant Director of Drawing and Manual Training.

Paper read before the Boston Normal Art School Alumni Association, Jan. 19, 1907.

TO WHAT EXTENT ARE DRAWING AND MANUAL TRAINING RELATED?

Let me say at once that I shall treat my subject frankly from the manual training standpoint. As seen from this point of view, I shall state anew the *purposes* of giving instruction in drawing and the *purposes* of giving instruction in manual training, selecting those more commonly given by interested advocates of these two branches of school work to-day.

What I have to say is very simple and has often been said before; but it sometimes happens that old truths stated in a new way, and especially old truths placed in new relations, assume new significance and have a new value. It is my hope that we may come to some clearer understanding of the relation between drawing and manual training by comparing the various purposes for which they are said to be taught.

The purposes of giving instruction in drawing in, let us say, our public schools, are, as I have gleaned them from various sources, as follows: —

1. To develop the habit of observing, with some care and accuracy, the appearance of the common objects with which we come in daily contact.

2. To develop some facility in expressing graphically the facts thus observed. This facility is thought to be desirable because of the added power which another form of expression naturally gives, because it helps a pupil to clarify his ideas regarding any visible thing, and because it enables him to illustrate other school work.

3. To develop ability to make and to read simple working drawings.

4. To give some acquaintance with color, — knowledge of its theory, appreciation of its effects and practice in its application.

5. To impart some knowledge of great works of art, ancient and modern, usually considered under the heads picture study and historic ornament.

6. To give an insight into the principles of design, including application to material.

7. To develop the æsthetic sense, which enables one, as John Cotton Dana says, "to see clearly, to discriminate and to feel."

What, now, are the alleged purposes of giving instruction in manual training? Let me, parenthetically, call attention to the fact that quite as the word "drawing" very inadequately expresses the purport of the work now done under that head, so the term "manual training" is only in a small degree descriptive of the subject as it is embodied in the school life of to-day.

The purposes of giving instruction in manual training are said to be as follows: —

1. To develop habits of neatness, order and exactness.

2. To afford some facility in the use of tools, and some knowledge of the processes by which common materials are bent and formed and fashioned into the articles with which we daily come in contact. This facility is thought to be desirable because it furnishes added means of expression; because it calls the pupil's attention (to some extent at least) to the inevitable relation of cause and effect; and because it makes possible a greater variety of illustrative school work.

3. To develop manual skill for industrial ends.

4. To provide rich and varied motor training, that increased mental power may result.

5. To provide a rational basis for the study of typical industries.

6. To prolong the school life of some of our pupils by appealing to their natural interest in constructive work, and especially in that which possesses possible industrial value.

I believe that a thoughtful comparison of the purposes of drawing with the purposes of manual training, as here given, will show that in certain respects the subjects are supplementary, while in others they are almost wholly independent.

I shall call attention first to some phases of manual training in which its purposes differ widely from those of drawing. The

benefit to be derived from such consideration here consists mainly in this, — that fuller knowledge of our aims will gain for us respect where sometimes there has been lack of appreciation. This is important, for there must be mutual respect if drawing and manual training teachers are to work together successfully.

You will note that both drawing and manual training are sometimes considered, not as subjects of instruction themselves, but as methods of teaching other subjects. Manual training is an excellent preparation for and an aid in the teaching of physics, for example. Constructive work gives the pupil, at first hand, a knowledge of some of the properties of matter, and the processes involved illustrate some of the laws of physics. A man might have a theoretical knowledge of all the laws of physics, but without some practice in the mechanic arts he would find little opportunity for the application of them.

A moment's reflection will show us what important contributions the mechanic arts have made to nearly all phases of applied natural science, — gravitation, heat, light, electricity, giving us our marvellous means of locomotion, of transmission of power and of communication, and the whole field of optics, including the many varied applications of the microscope, telescope and camera. Without knowledge of mechanical principles and processes the mental attitude of our ingenious inventors would have been impossible, and the intricate and accurate scientific instruments and machines would not have been forthcoming. The foundation of this knowledge of mechanical principles and this possession of mechanical experience is laid by the simple, straight, square, exact work of our manual training, at which our more artistic brothers among the drawing teachers sometimes laugh, and for which they sometimes criticise us. There is, therefore, much of our manual training work which has little evident relation to some of the pictorial or ornamental phases of our art work, but which is none the less artistic within its own sphere.

In this connection may I quote from an address by Mr. Milton P. Higgins, president of the Norton Emery Wheel Company, Worcester, Mass. "It is very important," says Mr. Higgins, "to ask what kind of drawing or art training will

best meet the needs of a manufacturer and the needs of a mechanic. Must it have to do with art culture? Yes; for the mechanic knows art and he appreciates culture, but it must be his kind of art and his kind of culture, — still, art and culture just the same. Must it have to do with beauty? Yes; for he, the mechanic, loves the beautiful, but not always the same beauty that the landscape artist loves, but beauty just as surely."

If I could, I would paint you a word picture of a beautiful landscape, rich in color and vibrant with light, and I would ask you to try to realize the paucity of the soul which could not receive pleasure from its contemplation. Poor also is he who can listen to one of Beethoven's sublime symphonies without being thrilled by its beauty and grandeur. But what of the man who can stand unmoved before a Corliss engine, which is so perfectly designed and so accurately constructed that it silently does the work of five hundred horses? Does not he also lack something of complete appreciation of the beautiful? It is this kind of beauty, I think, to which Mr. Higgins refers.

I have intimated that drawing teachers may occasionally overlook the importance of certain phases of our manual training work. On the other hand, it is undoubtedly true that manual training teachers sometimes fail to appreciate the value of some of the drawing, the final results of which must be sought for in the developed æsthetic sense which enables one "to see clearly, to discriminate and to feel."

An examination of those forms of manual training which have been given for the specified purpose of developing mental power will show another instance in which manual training has been developed independently of drawing. In this connection it is necessary to examine briefly the historical or social setting of the manual training movement.

Two generations ago the majority of our youth were growing up in rural districts, in villages or in small towns. Even those in the more highly educated classes had only a few weeks' schooling, were in close contact with nature, and had ample opportunity for useful and varied manual work. Incidentally they became acquainted with whatever industrial life there was in their immediate environment.

On the other hand, those who were preparing for an indus-

trial life were cared for by the apprenticeship system then in vogue, which provided not only for instruction in the chosen trade, but, at the same time, for a certain amount of schooling. In neither case were children taken from life to be educated for life, but a rational and intimate relationship was maintained between work and study. According to Mr. William Noyes of Teachers' College, it is the present mission of our schools to re-establish this relationship between work and study. I have heard many men speak on the subject of manual training in the last fifteen years, and, without exception, the men of great breadth of view and of profound learning have emphasized the importance of manual training in this particular. Men differing as widely in their educational work as Dr. Dunton, formerly of the Boston Normal School, Dr. G. Stanley Hall and Dr. Nicholas Murray Butler, have all insisted that this combination of work and study produced men and women of superior mental and moral fiber, and that it is the chief purpose of manual training to re-establish the true balance between manual work and book work.

The recent report of the Massachusetts Commission on Industrial and Technical Education says: —

> City life instead of rural life, life in tenements and flats instead of in houses, together with the increase of wealth, have combined to deprive great numbers of children of these opportunities for industrial activity which were inseparable from life on the farm. Well-to-do people are everywhere lamenting that there is nothing for their children to do. The children are always receiving and never giving. Food, clothing, shelter, education, amusement, — all come to them as freely as the air and the sunshine.
>
> The effects of these changes repeatedly brought to the attention of the commission are not most serious where we might naturally expect, in a lack of manual efficiency, though that is marked, but on the intellectual and moral side. There is a one-sided sense of values, a one-sided view of life and a wrong attitude toward labor. Not having any share in productive labor, and being out of touch with it, the youth have no standards by which to measure time or possessions or pleasures in terms of cost. Many persons believe that about this point center some of the gravest present-day social problems.

No summary, however brief, of the influences which have inspired and modified the manual training movement, should

fail to include some mention of the contribution made by those who studied the question from the standpoint of physiological psychology. Briefly stated, their conclusions were as follows: The larger part of the brain is that which is affected by and which controls motor activity. The larger part of the motor area of the brain is that which is related to the hand. Therefore, much use, and especially the varied and purposeful use, of the hand results in a development of the motor area of the brain, and, by association or contagion, as it were, in the improvement of the whole mental structure. The chief aim of manual training, according to this theory, is to multiply and enrich the motor experiences. The well-developed brain is one which possesses a great variety of motor memories. It is safe to say that this theory has materially affected the practices of scores of manual training teachers. I am inclined to believe, however, that it has far less influence to-day than it had ten years ago, and that the more obvious social and industrial purposes are controlling or shaping our manual training work. I submit, however, in so far as the above theory is valid and valuable, in so far as the important thing is to increase and enrich the motor memories, that manual training must be governed by other considerations than the correlation with drawing.

It is, however, in those phases of drawing and manual training which are supplementary that we are most vitally interested, and I turn with pleasure from the foregoing somewhat academic discussion to two practical considerations.

The report of the Commission on Industrial and Technical Education shows that drawing and manual training had a common origin in the schools of Massachusetts, as both were authorized by legislative enactments which were prompted solely by industrial considerations. If we can accept the conclusions of the commission, neither has served to any considerable extent the end for which it was authorized; both have gone wide of the mark and both share in the common condemnation. The report says: "The result has been that drawing in the schools has become more and more exclusively cultural in its purpose and method, and the original industrial purpose has been largely lost sight of." It also says: "The wide indifference to manual training as a school subject may be due to the

narrow view which has prevailed among its chief advocates. It has been urged as a cultural subject, mainly useful as a stimulus to other forms of intellectual effort, a sort of mustard relish, an appetizer, — to be conducted without reference to any industrial end. It has been severed from real life as completely as have the other school activities. Thus it has come about that the overmastering influence of school traditions has brought into subjection both the drawing and the manual work."

This is a somewhat gloomy picture, or it is a challenge, as you choose to look at it. Let us, with this stinging criticism in mind, take up some of the purposes previously mentioned, and see if, by *combining* the forces of drawing and manual training, we cannot make both more vital.

Take three of the previously expressed purposes of drawing: —

1. To develop the habit of observing the appearance of common objects.

2. To develop some facility in expressing these facts graphically.

3. To develop the ability to make and to read working drawings.

I believe that there is a relation between drawing and manual training, regarding the formation of habits of observation and the development of facility in graphic expression, which is generally overlooked. I also believe that, because the relation between manual training and the working drawing is so obvious, it is often over-emphasized or misinterpreted.

In English composition it is thought best to require children to write about matters of their own experience, because they will then express *themselves,* not merely repeat words in a parrot-like fashion. In the same way, drawing teachers would do well to have the children make perspective drawings of the models they are to make or have made in the manual training room, because these models are of immediate and vital interest to them. The facts of form are important to them, and, if they are somewhat familiar, they are *somewhat* new, which cannot be said of the type solids.

Instead of making perspective sketches of the manual training models, pupils are generally required to make careful working drawings of them. This *seems* logical, but I believe it is

unreasonable. Ultimately we wish our pupils to have the ability to make and to read working drawings. It is as illogical to have the children read only the drawings which they themselves have made as it would be to have them read only such English as they themselves had written. The *reading* of working drawings can best be taught by the manual training teacher. Carefully prepared drawings should be furnished for most of the models in the earlier years of the work; and the manual training teacher fails in his full duty every time he tells his pupils a fact of form or dimension which can be learned from the drawing.

To *make* a working drawing, one must have the ability to work with some accuracy, and must understand the method of representing, by two or more so-called "views," the facts of form and dimension of an object just as they are, not as they seem, — in a word, orthographically.

The ability to *work accurately* can be better developed by constructive work than by pencil and straight-edge; and this ability can be put to practical use in drafting at twenty-five as well as at twelve. In constructive work the child experiences the shock of misfit. I borrow the expression from Dr. Frank McMurry, who tells interestingly about receiving such a shock himself while attempting to fit a screen door. The problem was simple: an opening of a given size, a screen door slightly larger than the opening, — plane the door until it was the same size as the opening. He says: "It is only when one has experienced the shock of the misfit between what he has thought will hold, on the one hand, and what he finally finds to be true, on the other, — it is only then that one is really sharpened to the point of developing good judgment." Children rarely experience this shock from inaccuracies in their drawing.

The understanding of the *method* of orthographic projection is a feat of the imagination, and can be gained at twelve better than at twenty-five. It can be gained better by making ten free-hand sketches in an hour, orthographically, than by making one such drawing mechanically, — mechanically as to the drawing, and also mechanically as to the understanding of it; for it takes the beginner so long to express the thought that soon there is no thought to express.

Therefore, have pupils make pictorial drawings of their

manual training models. Teach the methods of orthographic projection apart from manual training, employing free-hand sketches and numerous models, and let the manual training teachers teach the reading of working drawings.

I believe that the most vital relation of drawing and manual training, however, is indicated in the two following purposes: (1) it is an expressed purpose of manual training to prolong the school life of our pupils by providing constructive work of a possible industrial value; (2) it is an expressed purpose of drawing to give an insight into the principles of design, including application to material. It is precisely here that neither drawing nor manual training has been able, *alone,* to fulfill the expectations of its friends and advocates. Working *together,* there is promise of satisfactory results.

It is worth while for us to appreciate the fact that the industrial phases of our work are receiving much attention at this time. The last program of the department of superintendence of the National Educational Association gave much time to the subject, as did the program of the joint session of the Eastern Art Teachers Association and the Eastern Manual Training Association. More recently the National Society for the Promotion of Industrial Education was organized in New York, with addresses by many prominent men and women. The Social Education Congress, which was convened for the first time in Boston last November, also gave prominent place to the consideration of industrial education.

The subject of the applied arts has also received much attention, and one frequently hears such phrases as "the applied arts and their relationship to life," or "applied design as related to industry." Notwithstanding that much has been said about it, the problem of industrial education is far from being solved, for it is a most complicated one. Those who talk learnedly about it have no solution to offer. Some claim that it is not the business of the schools to try to solve the problem; but I believe that it is a problem, both for our industrial interests if they are to maintain even the present mediocre standards, and for our educational institutions if they are to hold their place in the esteem of the people at large as an important factor in our national existence.

There is grave danger, if the working out is left entirely to

the industrial interests, that they may carry over into the shop-school the features of present industrial methods which are least desirable, — such, for example, as the subdivision of labor and the training for great efficiency of effort in a very limited field. There would also be a tendency to become over-technical and ultra-utilitarian. I believe that it is precisely at this point that the educational institutions will tremendously affect the problem by bringing to bear the combined forces of drawing and manual training. The educational institutions, by their very traditions, will tend to uphold the idea that the industrial demands will not be met by the development of manual skill alone in one set of people and of taste and appreciation alone in another set. Skill alone might result in the ability to turn out a larger amount of ugly work, and to flood the market with goods that are attractive simply because they are cheap. Taste and appreciation alone frequently result only in criticism of our own, and praise of other times and people. The industrial ends will best be served by that training which enables the worker to appreciate, even if he does not actually participate in, the entire process from design to finish. It is this all-round training toward which the schools will naturally tend.

It remains to make some suggestion as to how the schools are to attack the problem. Of course the best way — the only way — is to train competent teachers. These teachers *will be trained,* — if not by normal schools, then by some other agency; but they will be trained. The fact remains that there are not to-day a sufficient number of teachers trained in both manual and art work to materially affect the problem, and the problem is a *present* problem. Therefore, what is needed immediately is the co-operation of our present forces of drawing and manual training. Mr. John Cotton Dana, librarian of the Newark Public Library, says: "This is already evident, — that the teacher of drawing and art in the schools is going to get the strongest and best argument for the continuance and the expansion of her work from the relations it will have with things made with the hands." In all grades we see teachers of drawing trying, and rightly trying, to carry the drawing, the design, over into construction; but in all grades, especially in the higher, we find these teachers hampered by their lack of knowl-

edge and experience regarding materials, tools and processes of construction. We find them ignoring the manual training room, with its equipment of tools and its teacher, who, by training and experience, probably has the ability to work in several kinds of material. We find them improvising tools and processes whose only recommendation is that they are ingenious. Metal work, for example, has thus been done with a pair of scissors, a bottle and a nail. It is especially true in high schools that the drawing teacher, who has the ability and the training to enable her to teach the designing for half a dozen lines of work, confines herself to one, because in that one she has the knowledge which permits her to teach, as well, the application of the design to material. What is needed here is the co-operation of a good, all-round, manual training teacher.

On the other hand, we find the manual training teacher who has become dissatisfied with the making of abstract practice pieces, or "useful models" of doubtful utility, reaching out into the world of real things, and trying to design furniture, etc., ignoring the drawing department, with its technical knowledge of design, and relying for suggestions on catalogues of manufacturers, or on the drawings of other teachers as untaught in the arts as himself.

Dr. Hale's great word "together" is the great word here also. I believe that the barrier which has kept the two school activities apart has been personal rather than technical. There has generally been an attempt of one to absorb the other, or of the other the one. There has been professional jealousy, and, worst of all, misunderstanding of the other's purpose and point of view. It is of first importance that drawing and manual training teachers should be brought to realize their dependence each on the other. Neither should be subordinated to the other. Over-prominent self-respect should give place to mutual respect; and it will, when it is understood by each that the other has something without which *he* cannot do his best work.

With right understanding between the two, there will always be conference as to questions of time, ability of the worker, limitations of the material, etc., before any project is begun. There will be co-operation throughout the entire process, and joint satisfaction in the finished product.

There will also be an effort on the part of both to learn something of the "economic idea." There is no time to consider that subject here; but the "economic idea" involves questions of organization for work, concentration of effort, elimination of waste and a consideration of values, — time value, value of material, and the value of good workmanship. And may I express the belief, in closing, that manual training will make an important contribution to art in the schools in this very matter of good workmanship. To one engaged in the finer kinds of machine tool work it is a common matter to deal with measurements of one one thousandth of an inch or less. In speaking of this fact, I have often noticed the look of incredulity in the faces of those who have had no experience in such work. In the same way it is incomprehensible to one untrained in the refinements of art that the beauty of a curve may be destroyed or the perfect rhythm of a design be missed by the deviation of a line by so little as a hair's breadth. Even though untrained in art, one can the more readily accept this latter statement as a fact because he has had experience with the former. And so I believe that the person who has learned to have respect for clean-cut, accurate work, honest construction and good finish, — in short, for good workmanship, — will have become more discriminating in regard to the arts, and will have refined, to that extent, whatever else he has otherwise acquired of the æsthetic sense.

Appendix E.

Report of a Visit to Normal Schools of the Middle West.

BY

ARTHUR C. BOYDEN,

Principal of the Bridgewater State Normal School.

REPORT OF A VISIT TO NORMAL SCHOOLS OF THE MIDDLE WEST.

To the Board of Education.

Through the courtesy of the Board of Education I was permitted to give the month of May, 1906, to inspecting normal schools of the middle west. The visit included eight schools, which were recommended as being representative of the organization and methods of normal work in that section of the country. The utmost kindness was extended to me by the authorities of these schools, and many valuable suggestions were gained which are worthy of careful consideration by the schools of this State.

The schools selected were those at Ypsilanti, Mich., representing, with its membership of 1,600, the normal college type of school; Kalamazoo, Mich., a new school which is working at the problem of preparing teachers for the rural schools of the State; Milwaukee, Wis., a normal school under city conditions, requiring high school graduation as an essential to admission; Oshkosh, Wis., a large school, organized along broad lines; Menomonie, Wis., unique in its organization for industrial work, and having intimately connected with it a county agricultural and training school; Cedar Falls, Ia., organized on a scale to meet the needs of a large State in which it is the only normal school; DeKalb, Ill., a comparatively new school, finely situated, and equipped along modern lines; Normal, Ill., one of the oldest schools, and well organized in all lines of work. Although none of these closely resemble the Massachusetts schools, there is much of value for us to learn from them in their plan and organization. A visitor from the east is impressed with the progressive spirit in which modern problems in education are met, the great freedom allowed in working out the problem and the adaptive means used to accomplish the work.

The Normal School an Institution.

What makes the most marked impression is the breadth of the work regarded as appropriate to a normal school. The larger schools are thoroughly differentiated into departments, each with its head and its body of assistants. All lines of pedagogical preparation are covered, — primary, secondary and specialization. All kinds of student activities are organized and developed, — literary, social and athletic. As a result, a strong class of students is attracted to the institution, and the graduates have a wide range of influence in the State. Strong faculties of expert teachers are possible to a degree unattainable in small schools, where one person must teach a variety of — sometimes unrelated — subjects.

The school year is divided into terms of twelve weeks each, often with an additional summer term of regular work. Compact courses are thus provided, which comprise five hours per week in four subjects, not including physical training, general music and literary exercises.

Cultural Character of Normal Work.

In most of the schools the so-called curriculum studies and the distinctly pedagogical subjects are obligatory, while the additional subjects are arranged in groups of electives, thus enabling students to pursue lines of culture which will contribute to their teaching ability much further than an entirely obligatory course will allow. The study of these cultural subjects is conducted with direct reference to teaching, and is intended to be on as broad lines as the work in the State University. In most cases the University gives specific credit for work done in the normal schools. As a result, a large number of normal graduates each year go on to the University, and later fill positions in the high schools of the State. This plan seems to be one solution of the problem of preparing teachers for secondary schools. The faculties of the normal schools are largely made up of graduates of both institutions, — normal school and State University.

In schools having a four years' course above high school graduation a pedagogical degree is given, after thorough ex-

amination. The elective cultural work makes this possible, and it gives an adequate recognition of professional preparation.

Libraries and Reading Courses.

All of the schools have large libraries: Milwaukee, 11,000 volumes and 6,500 pictures for school use, all carefully card catalogued; Oshkosh, 12,000 volumes in the normal library and 1,500 volumes in the training school library; DeKalb, 12,000 volumes; Normal, 15,000 volumes and 4,500 pamphlets. The purpose seems to be to make the libraries complete in all lines that apply to the teacher's preparation for his profession. Trained librarians are in charge of each library, with a corps of assistants sufficient to make it available to students and teachers in the most effective manner possible; so that the libraries are fully organized and in constant use by all the students. Bibliographies are prepared by the librarian and instructors, in order to make all of the books and pamphlets valuable to the school departments. Courses are given in library management, to assist the students after graduation in organizing and caring for school libraries, as well as to give them facility in using large libraries.

Much attention is given to essays, debates, reading courses, literary societies and student plays, as representing the work of the literary departments.

In all the Wisconsin normal schools specified reading courses are established, for a threefold purpose: (1) to put in practice the knowledge of how to read, gained in the literary courses; (2) to extend the knowledge of books; (3) to put students in touch with world interests. Two of these courses, juvenile literature and library science, are required of all students. In addition, each student elects two courses from the following list: literature, travel, history, economics, sociology, science, pedagogy, psychology, ethics, art. Once a week the members of each reading course meet the teacher of the department under which it is conducted, for reports and discussion. The results of such courses are not only the formation of good habits of reading, but also the acquisition of a large fund of literary knowledge valuable in school work, — one more step towards the education of a cultivated teacher.

Manual Arts.

One is impressed with the vigor manifested in the different schools in working out the manual training courses. All of the schools are equipped for the different lines of manual training and for domestic science. Many of them are well prepared for training in the elements of practical agriculture. The grade teachers are prepared in all the lines of constructive work, — those from kindergarten upward, in many cases through the high school. Specialized courses are provided for supervisors, as a means of introducing the subject into the schools on the plan of an interchange of subjects among teachers in large buildings. The following principles are emphasized: —

1. Manual training should be *active,* rather than passive; therefore, the children should be moving about, using the different muscles of the body, in order that proper physical development may be attained. The exercises are planned to give much freedom of movement.

2. Lines of training should be chosen that will open up the *important industries.* The materials and the steps are simple, — adapted to child development; but they are so used as to lead up to a better understanding of the modern complex processes. In other words, the purpose is to make all the exercises educative.

3. The articles made should be intrinsically *useful,* and, if so desired, salable. This implies a practical turn to the work, — a fitting of means to the conditions in which the pupils are living, where the cost of the material, the time and effort spent upon it, and the actual use to which the article can be put in the home or school are important factors.

4. There should be a union of *art and craft;* design and structure should go hand in hand. In making the necessary models, each pupil first makes his own design; so that, while the models are similar, no two are exactly alike. The finished product should be a beautiful and useful article.

5. Originality should be encouraged, in order to develop inventive and creative power. After each fundamental model is made as indicated above, freedom is given pupils to construct

objects based upon the model in accordance with their own wishes or needs. These objects include toys, pieces of apparatus, furniture, implements, etc.

6. There should be a *thought basis* for all the work, — not mere imitation or repetition. Each object becomes a problem to be worked out, and it is so planned as to save material and effort. The cost of material and time is carefully reckoned, in order to decide upon a fair price if the article is to be sold.

7. The element of the children's special interests should be considered in the articles to be constructed, particularly in their earlier years. Articles used in their games, in their gardens and in their doll houses are considered among the most effective. As the work proceeds, the training involves the shaping and directing of interests into lines of permanent value.

As to materials and courses, there is a critical and discriminating attitude evident. In the light of the above principles, much that has previously been used is now being rejected. In cardboard construction, for example, hosts of articles that are mere trinkets are being laid aside; and among the articles that are considered of most value are booklets for a variety of uses, real pasteboard boxes and covers, filing envelopes of different sizes, and photomounts. These enter into the life of the home, and after samples are made in the school exercises, duplicates may be made by the children as desired.

Clay work is coming into a place of increasing prominence, not only because it represents an important industry, but especially because of the ease and rapidity with which it can be used to represent form and design in all the grades of the schools.

Weaving represents an industry, simply, and has a limited value. Beginnings are made with commonly available material, such as reeds and corn husks. Materials are used in the order of the muscular force required to manipulate them. Raffia has a limited use, as a means only, because it does not represent an industry. Usually only one of a given kind of product is required, the rest being voluntary, according to the desires or needs of each child.

Bent iron work also has a limited use, but is valuable in

teaching structural ideas as represented in bridges, or in making really ornamental objects, as in the case of the lantern model.

In some of the schools the normal students were using book binding as a most valuable kind of industrial training. The hand printing press was a helpful adjunct.

In domestic science most of the schools are well equipped, either for the preparation of supervisors or for instruction in the kind of schoolroom domestic science that can be used with limited means in teaching those practical habits which are helpful in ordinary homes.

The fullest expansion along industrial lines which was observed was at Menomonie, Wis. Here are centered manual training courses from the kindergarten through the high school, a special kindergarten training school, a fully equipped training school of domestic science, a county training school for teachers in rural schools, and a county agricultural school. The principle followed out in these institutions is stated by the superintendent as follows: —

> Manual training as a form of educational effort involves such a systematic training of the hand in construction work, through the use of tools and manipulation of material, as is adapted to the proper development of the motor activity of the hand, initiated, guided and controlled by mental activities essential for the proper development of the mind. This training will enable the individual to more readily and more effectively employ the hand in productive labor in the field of industrial effort.

School Gardens.

This movement has spread rapidly and in most cases effectively. The simple school gardens as at first established are expanding into natural science gardens adapted to the study of biological and agricultural problems by normal students, as well as for use by the children. All of the schools visited are equipped, some of them extensively, with large areas of land, a greenhouse, tanks for living water plants and animals, and a trained gardener. On the school grounds the attempt is made to have all the native trees and shrubs fully represented by typical specimens, and in the garden there is the succession of flowers arranged according to the seasons. Such an environ-

ment is eminently adapted to the study of insect and bird life in its natural association with plant life. The garden becomes a real nature laboratory for both normal students and children.

The purposes of the garden are: (1) to bring the students into first-hand contact with nature as a basis for science study; (2) to emphasize economic values through commercial crops raised in connection with geographical study; (3) to cultivate the æsthetic taste which will lead directly to school ground decoration and to the beautifying and improving of home conditions; (4) to train normal students in directing the development of school and home gardens.

In certain cities the results of this kind of work by teachers and pupils were in marked evidence. One city will serve as an interesting example. Every school ground had its decorative garden, prepared, planted and kept by the children. There were home-made greenhouses under the sympathetic care of janitors and teachers, in which plants were slipped and potted for winter and later prepared for spring planting. Seeds and slips were given out for home gardens, and in the fall each school had its flower and vegetable exhibit. In passing through the city a visitor sees evidences of this movement toward civic beauty in numberless yards in all quarters of the city. Such co-operation of school and home is possible in every city and town where teachers are prepared to direct or assist in the movement.

The instruction given in the county agricultural schools and in the county training schools for teachers of rural schools is eminently practical, dealing with the actual agricultural and economic problems of the county. The purpose is to make the rural school a center for the educational uplift of the whole community. The normal instructors know the county thoroughly, and visit their graduates to give advice and assistance. The students visit typical rural schools as a part of their training.

A beginning is being made in teaching the elements of agriculture in the normal schools under such topics as: (1) the soil, — its origin, texture, tillage, soil moisture, enriching the soil; (2) the plant and crops, — the seed, preparation of the seed bed, germination, plant growth, pollination, plant diseases,

injurious and helpful insects, management of crops; (3) practical work in propagating fruits and flowers by grafting, budding, layering and cuttings. Much of the nature study is turning into this line of practical work.

Training Schools.

Certain well-defined impressions regarding the practice work are made upon the visitor to these schools: —

1. *The Thorough Organization and Differentiation of the Training Work.* — As a department of the institution the training school has its head, its supervisors and its critics. Its course of study is carefully worked out, and is usually printed. Lesson plans are insisted on with great care. The student teachers are early differentiated into kindergarten, primary, intermediate, grammar and high school grades, or as special teachers. In many of the schools the admission of students at the close of their second year in the high school, or its equivalent, gives opportunity for practice in high school work; it also has advantages to the students in giving them at least four years of thorough training in normal methods under strong teachers.

2. *The Group Plan of Teaching.* — Under this plan classes are divided into small groups of from six to ten pupils each. These groups are taught by the student teachers, each student teaching the same subject or subjects one period per day for a full term, under careful supervision. The purpose is to develop the power for good teaching along a definite course of study for a period long enough to enable the student to grasp the scope of the work. After sufficient practice along several lines of work, the student becomes a room teacher with charge of the details of management, — still under careful supervision. In some cases the students go out into the city schools, either to assist the regular teacher in routine matters, to help individual pupils, to teach certain branches or to take charge of a room for occasional periods. In the last year of the course many students go out as substitutes at nominal pay. There are various plans followed where city schools are used in addition to the regular training school.

3. *Critique Lessons.* — "For the illustration of methods in dealing with class exercises, illustrative lessons are given each

week. These lessons are conducted by critic teachers, by teachers from the normal department, or by students who have shown unusual skill in the training school. The classes are selected successively from the grades of the training school. The exercises are freely criticised, in the light of pedagogical principles. In the development of the various subjects of the curriculum that bear immediately upon the work of the grades, similar exercises are employed in the regular classes of the normal department."

4. *Classes in Methods.* — The student teachers in the primary and grammar sections of the training school meet the supervisor of their section for preparation in the details of their work. The course of study is thoroughly discussed, a careful examination of the text-books is made, lesson plans for each grade are prepared, types of all the lines of constructive work are made by the students, and practical devices for drill exercises are prepared. This plan gives intelligibility and efficiency to each step in the practice teaching, and equips the teacher for the practical work of the school room.

5. *Special Course for Primary Teachers.* — In some of the schools this course has proved a marked success. It is provided for those "who have the mind, the spirit and the adaptability required for dealing with young children." A special diploma is granted, and the students are classified as "superior," "excellent," "good" and "fair," according to the degree in which they have succeeded in doing the work outlined. For high school graduates this course occupies two years, and includes child psychology, primary methods, elementary manual training and sewing, English, drawing, vocal music, physical training, arithmetic, biology, United States history, American literature, school management, history of education, a specified number of electives and practice in teaching.

Other Points of Interest.

A brief outline of the other points noted in different schools will be sufficient without elaboration: —

1. The professional courses in education are broad and extended, including psychology, principles of teaching, school management, child psychology, science of education and the

history of education. Much emphasis is placed on the history of education. The objects of the study are to investigate educational ideals, ancient and modern, and to broaden the student's educational horizon by making him familiar with the leading educational theories and systems that have influenced our present ideals and practices.

2. Prominence is given in all the schools to economics and sociology. In sociology the aim is "to train the student to observe more closely the social conditions by which he is surrounded, and to relate these to his school work and to the community in which he is to teach." The study is supplemented by visits to various places, for the purpose of observing practical conditions. In economics the aim is "to create an interest in, and to secure, a scientific study of the affairs of the day." In most of the schools elementary courses are required, while advanced courses are elective. The subject is taken as a regular study, five hours per week.

3. Great importance is given to field work in geography and biology. There is an appropriate equipment of local maps, bird glasses, etc.

4. Special attention is given to physical training. Ample opportunities are provided for out-door and in-door athletics, and children's games are made a special study. The German, Swedish and elective systems are taught.

5. Individual training in blackboard sketching is a common feature of the schools. Usually a room especially fitted up for the purpose is provided. Extended practice is given in natural forms, plant and animal sketches, illustrations of literature and artistic reproductions or creations.

6. The observation of methods in the normal classes was necessarily limited. There were discussions in marked prominence, reports on library reading, the conducting of exercises by students, reading of theses, sharp quiz exercises, demonstrations and laboratory experiments. The lecture system was only slightly in evidence.

7. Thorough professional courses for college graduates and superintendents of schools are provided in most of the schools. These include child psychology, school management, history of education, modern methods of teaching, courses of study, school

supervision, philosophy of education, practice and electives from scholastic lines.

8. The importance given to musical courses is characteristic. Glee clubs are common as a part of the school work in music. Opportunities are provided for instrumental practice and instruction in preparation for teaching. In some schools there is a special music course for kindergartners, including care of the child's voice, study of kindergarten songs and practice in teaching songs to classes of children.

9. In Wisconsin the value of a State policy for normal schools is in evidence. Although freedom is allowed within general lines, definite purposes are worked out in broad plans and courses, and the unity and thoroughness of the work is noticeable.

10. Graduates of high schools with four-year courses who are accredited to the State University are admitted without scholastic examination, provided that the work of the high school in the branches covered is accepted by the University. Their work must be attested by the principal of the high school. This plan makes it easier for the normal graduates to receive credits in the universities.

11. Teachers' bureaus are organized in the schools, often with much detail. The normal schools become the centers for the distribution of teachers in the State.

12. The atmosphere of sympathy and confidence between students and faculty is very marked. The spirit of self-government is developed, and opportunities for student initiative are many. Advisors for different groups of students are selected from the faculty.

Conclusions applicable to Massachusetts Schools.

The question arises, How far may the normal schools of Massachusetts profit by the experience of her sister schools in the middle west? Conditions, of course, are somewhat different; hence the following suggestions are made in a general form, without attempting to specify the detailed changes which they may imply. The specific modifications required might be worked out through conferences between the Board of Education and the principals of the normal schools.

A broadening of the course of study is needed, in order to give more opportunity for elective cultural work. At the same time, courses might be arranged so as to allow more differentiation in the preparation of teachers. Broad courses of reading could be established.

Definite steps might be taken toward the preparation of teachers for secondary schools and of those who wish to enter the field of supervision. In connection with this work there could be established closer relations between the normal schools and colleges. This might be accomplished by accepting college entrance certificates in place of the scholastic examination, and then gaining some recognition of advanced normal work by the colleges, or by arranging strong professional courses for college graduates. In some way the path to a college or pedagogical degree should be opened for normal school graduates.

There might be an expansion of the courses in the manual arts, including domestic science and the elements of agriculture, for the preparation of teachers along the most practical lines. School gardens should be developed into the broadest function of which they are capable. In view of the public interest in this question throughout the country, Massachusetts should take a leading position in the movement, and ample facilities for courses of this kind should be provided in each of the normal schools.

Appendix F.

WHAT A CITY OWES TO ITS BOYS.

BY

GEORGE H. MARTIN,

Secretary of the State Board of Education.

An Address given before the Social Education Congress in Boston, Nov. 30, 1906.

WHAT A CITY OWES TO ITS BOYS.

That great German statesman, Martin Luther, in an address to the councilmen of all the towns of Germany in 1524, used these words, which are as significant in America in the twentieth century as they were in Germany in the sixteenth: —

> A city's increase consists not alone in heaping up great treasures, in building solid walls or in multiplying artillery; nay, where there is a great store of this, and yet fools with it, it is all the worse and all the greater loss for the city. But this is the best and the richest increase, prosperity and strength of a city, — that it shall contain a great number of polished, learned, intelligent, honorable and well-bred citizens; who, when they have become all this, may then get wealth and put it to good use. Since, then, a city must have citizens, . . . we are not to wait until they are grown up. We can neither hew them out of wood nor carve them out of stone. . . . We must use the appointed means, and with cost and care rear up and mold our citizens.

It is customary in debating societies for the disputants to begin by defining the terms used in the question to be discussed. Were I to follow this practice, I should find it easy to define a city, but impossible to define a boy. The word is undefinable, as the thing which it stands for is indescribable. We know him when we see him, and no words can add to our knowledge. And he refuses to be classified. In the morning he may seem to have all the marks of a civilized human being; before noon he has shown unmistakable signs of being a brute or a savage; and at night so affectionate is he that his mother thinks he is an angel. The long process of development by which the boy ultimately becomes useful includes on its physical side much that belongs to the lower animals. He is a whole menagerie. He runs like a hound, climbs like a monkey, digs like a woodchuck, dives like an otter, swims like a fish, fights like a bull dog, and in it all works like a beaver and is as busy as a bee.

This varied, kaleidoscopic activity, these lightning changes, become a consistent and harmonious whole under a single fundamental law.

The boy finds himself under an irresistible impulse to measure himself against every external force, to test every limb, every organ, every function, to its limit, and to do this every day. Although he bears no banner to advertise his emotions, "Excelsior" is stamped on his every act. The warning cry of his anxious mother, "Try not the pass," is always sounding in his ears; but he tries it all the same, — if not to-day, to-morrow.

By obeying this impulse he accomplishes two things. He gains in strength and agility, in power to handle himself, — to direct his energy in the most effective way.

Besides this he comes gradually to learn his limitations, — how far he can go in matching himself against the forces of nature, how much is worth while in his struggle for supremacy, what is the margin of safety in the risks he takes. All this is an essential element in successful manhood.

According to the Lamarckian theory, the neck of the giraffe grew by a long-continued effort to reach a receding food supply. So by doing stunts, by perpetual effort to break his own record, the body of the boy grows into the body of a man and becomes the efficient servant of his mind. And the mind itself grows in perception and judgment and generalization and inductive reasoning.

This fundamental law of boy life explains things which perplex many good people. It explains his general attitude towards the world, his contempt for the weak, his hero-worship, his early choice of a vocation, — a pirate, a cow-boy, a policeman, a fireman, a locomotive engineer, a diver, a balloon man, — and latterly he sees in the occupation of a chauffeur a supreme opportunity to kill and be killed. The sea with its mysteries and its perils has always had an irresistible charm for boys.

It explains, too, his choice in reading. He wants to know about men who dare. When a small boy had asked his mother to read to him in the papers about the prize fights, and had

been refused, "Then read to me in the Bible about Samson," was his reply.

In all this are we not hearing a faint echo from that dim and far-off past, where the ancestor of all boys, that creature which we call "primitive man," was feeling his way into the mysteries of his new-found world, measuring himself against its inhospitable forces? Was it not by doing stunts that the primitive man saved the race and set it going on its forward and upward way? Has it not been the law of growth in the race as well as in the individual? Does it not underlie all myths and legends, all the giant lore of all the ages? Who were Hercules, Thor and Sigurd, Lancelot and Roland, but prototypes of all boys?

With this orderly, beneficent world process of development a city interferes in the most ruthless way. All the natural impulses of the boy are thwarted — and most aggravatingly thwarted. There are trees, but he may not climb them; flowers and fruit, but he may not pick them; stones, but he may not throw them; waters, but he may not swim in them; hills, but he may not coast on them; animals, but he may not hunt them. His vagrant instincts must be restrained. He must walk in beaten paths. He has lost his freedom. He is a caged animal.

All this is no fault of the city. The city cannot help it. Steadily as the town becomes a city and as the city grows populous, the happy hunting grounds of the boys grow fewer and narrower. The woods, the fields, the gardens, the orchards, the houses with their enticing sheds and attics, disappear. Blocks and tenement houses cover and cumber the ground, and the boys are turned into the streets. This process is called "improving the property." We read in the paper that a piece of property has been sold to Mr. A., and that Mr. A. buys for improvement. I have recently watched this process in two pieces of property in a suburban city. On one street was a house sheltering a single family. About it were trees and shrubs, and back of it was a garden and an orchard. There was a barn and sheds, — an ideal place to grow boys in. Two or three years ago this property was bought for improvement. The old house was torn down, and on the land are now thirteen

three-tenement houses, occupied by thirty-nine families. In these thirteen houses are about fifty children; they play in the streets. Another similar improvement has replaced two single houses by twenty tenements, containing many children; they play in a public square.

The Spartans exposed their children on Mt. Taygetus; we expose ours in the city streets.

Under such conditions, inseparable from city life, one of two things happens. The boy gradually learns to submit to the superior forces about him, goes tamely in leading strings and becomes a good boy, — a comfort to his mother and the pride of his school teachers. But he has lost something in fiber, he lacks initiative, has no go in him. He likes to wear clothes and talk with the girls. He is ignorant alike of his own powers and of his own limitations. He doesn't know what to do in emergencies. He wants to ride when he ought to get out and push. Or he refuses to recognize the reigning authorities as legitimate, breaks through their restraints, eludes their vigilance, matches his own powers against the powers that be. Having little better bodily development than the others, he becomes precociously acute. His perceptions are keen but narrow, his judgment warped, and his reasoning is ready but fallacious.

These are extreme types, but every city has them both in numbers sufficient to make the problem of dealing with them a perplexing one. The majority of city boys will be found between these two extremes, having the characteristics of both in varying degrees.

Using the terms bad and good in a conventional way, besides the boys who are habitually bad or habitually good are the boys who are intermittently bad and good; who try to conform to urban requirements, and succeed fairly well, but whose boy nature sometimes asserts itself and gets them into trouble.

Then there are just average boys, who contrive to get a little fun out of life, even in the city; who never do anything very bad, but whose bodies and minds, never being subjected to any real tension, are flabby. They lack grit. These are the boys who clog the grammar and the high schools in every city.

The tragedy in all this is reached when the city boy has lost his instinct for primitive sport, when his ear is deaf to the call

of the wild. Workers among city boys have told us that this is the saddest thing they find, — children who do not know how to play.

In view of what boys are, of nature's provision for their growth, of the necessary interference of city life with those provisions, the first obligation of a city to its boys appears to be to give them a chance to develop freely in accordance with the laws of nature without breaking the laws of man.

In other words, every city is bound to furnish suitable and ample means by which its boys may grow physically into men without becoming criminals or even juvenile delinquents. Most large cities are beginning to recognize dimly this obligation, and are making feeble and half-hearted attempts to fulfil it. A few playgrounds have been opened, here and there a free public gymnasium, a swimming tank or two, and some skating ponds. This is all that the largest cities have undertaken, and most cities have scarcely made a beginning.

To pay its debt to the boys in full, the city should furnish a sufficient number of playgrounds conveniently situated for the use of all the boys. These playgrounds should differ in size and in equipment, from the small neighborhood lot for the young children, with sand-boxes and swings, to the large athletic fields, with space for gymnastic apparatus, for team games and for the usual competitive exercises. There should be skating ponds for the winter, small and large, and swimming places for summer and winter. There should be a sufficient number of in-door gymnasiums amply equipped for the use of all the boys.

A considerable part of the wild land set apart for public reservations might be used for temporary camps, where some experience in woodcraft might be gained. There is land enough in a state of nature within easy reach of every city in New England to furnish to large numbers of boys opportunity to play Indian to good advantage. There is a field here for splendid team work by groups or clubs of boys, who might learn all the lessons of civil society by practice.

To plan for such work as this, to determine the number and location and proper equipment of grounds and buildings, to organize the whole work and then to direct and control it, would mean a new department of municipal administration,

co-ordinate with the department of education. Its chief would be a superintendent of physical training or a master of games and sports. His chief function would be to furnish opportunity. His interference should be only in the interest of safety and equal rights.

The city interferes with the intellectual development of a boy as disastrously as with his physical development.

The most effective agency in the intellectual development of a boy is not the study of books. It is experience in some form of productive industry. It is making something or doing something that has value in itself when it is done. Not only does he acquire skill of hand, but, what is of much more importance, he gets an idea of the elements involved in all productive processes, namely, material, labor and time; he gets some basis for estimating values in terms of cost; and he acquires that quality which is the mark of the master workman, — power to see the end from the beginning, and to trace the line which connects the two. Feeble at first, but gaining strength as his work broadens, he acquires a comprehensive grasp that marks the thinker.

If this experience is gained as a partner in the industry, to his other acquisitions are added a social element, a sense of comradeship in effort, and of obligation to his comrades to do his part. Loyalty to the organization grows out of such effort.

The man who goes back to the old farm, and says, as he looks about, "Father and I cleared that wood-lot. That's the wall we laid; how well it has stood! We made that old harrow and that ox-sled, and we built that old hen-house," — got out of that experience tired but deft hands, a brain to plan and a will to execute, and a sense of partnership in a piece of useful work.

It is easy to see that these are valuable contributions to that training for citizenship which this meeting is talking about.

This was the sort of training which all boys got in a greater or less degree in those days which we picturesquely describe as the "age of homespun." It was the sort of training which boys got in the mediæval guilds, and goes far to account for the fact that those guilds were able to gain control of civic affairs and to dictate terms to kings, while in the public build-

ings which they erected they left monuments to their own learning and skill in craftsmanship.

To this natural and healthy process of intellectual leading up to social development the modern city opposes an impassable barrier. For such experience and such partnership as I have described, the industrial organization must be simple. The family, the farm, the shop furnished ideal conditions.

In a modern city the industrial organizations are too vast and too complex. There is no place for boys, except on the fringes. And if a boy gets a foothold, he is exceptional if he sees enough of a process to develop any sense of mechanical perspective, any constructive imagination, or any sense of partnership and of loyalty.

Again, this is no fault of the city. It is an unavoidable result of modern social conditions. But the city is derelict if it fails to do what it can to make up to the boys for what they have been deprived of.

A city owes to its boys a chance for intellectual and social development through productive manual industry. This is the most difficult problem confronting the cities to-day, and the cities of the world are coming to recognize its seriousness. Were we starting anew, it would be easier to include such work in our scheme of education. All existing school traditions and school machinery are impediments.

The idea is deep-rooted that education consists of academic culture; that schools exist to promote this culture; and that the more elegant the schoolhouse is and the more artistic and beautiful it is made, the finer and the more impressive the culture which it represents and promotes. Marble and stucco, books, pictures, statuary and decorative plants are provided, to cultivate and minister to the æsthetic sense of the children. The sense they do not cultivate is a sense of the dignity of manual industry. A marble palace is a poor substitute for a shop or a piece of land. It may have its place in education, but its place is a subordinate and not an exclusive one.

What, then, does a city owe to its boys? First, land for cultivation, where they may learn by experience some of the initial processes of that industry that underlies all other industries, — the production of food.

Second, workshops, where they may learn by experience those mechanical processes that underlie all constructive industry, — real workshops, where a boy with a work apron and soiled hands would not feel out of place.

While, as I have said before, some cities have made a feeble beginning in providing opportunities for boys to play and to grow thereby, nowhere hereabouts have even beginnings been made at providing opportunities for the boys to work with their hands and to grow thereby. The so-called manual training is not the sort of work I am talking about. That is too scholastic and unnatural.

If the city owes these debts to the boys because it has deprived them of those natural opportunities which it is their right to possess and enjoy, it cannot begin too soon to pay them. It will cost money to pay them. It usually does cost to pay debts, and it is easier for the time to repudiate them. But these debts to nature are never outlawed, and sooner or later must be paid with interest, — and the interest accumulates rapidly.

The standing excuse for delay is, that the city cannot afford it because it is already spending so much on schools. I have recently done some figuring to see how much the cities are spending on schools compared with expenditures for other municipal purposes, to see if the children are getting more than their share.

I have the story of one Massachusetts city. In fifty years its population has increased 390 per cent. Its property valuation has increased 565 per cent. Its total municipal expenditure has increased 2,577 per cent. Its expenditure for fire protection has increased 1,933 per cent.; for streets, 2,351 per cent.; for police protection, 11,023 per cent.; and for schools, 1,084 per cent.

I have the average increase of department expenditures in the six largest cities of Massachusetts outside of Boston. They are as follows: —

	Per Cent.
Average increase in population,	429
Average increase in expenditures for fire protection,	1,711
Average increase in expenditures for streets,	2,317
Average increase in expenditures for police protection,	3,656
Average increase in expenditures for schools,	1,535

This increase in expenditures for police does not include the great expense of the courts and of the penal and reformatory institutions.

In the city first in the list for police expenditures, increasing 11,000 per cent. in fifty years, many years ago the city marshal in his annual report called attention to the increasing number of vagrants and truant boys and of juvenile criminals. Had that city then begun to safeguard the interests of the boys, so that, as their freedom was gradually restricted by necessary city ordinances, public provision was made to supply opportunities for natural and rational sports and occupations, there is no doubt whatever that the saving in police expenditures would have met all the cost of the preventive measures, while the saving of boys would have added untold values to the economic resources of the city.

If the financial burden upon the Massachusetts cities is a heavy one, it is not because the expenditures for schools have been extravagant. The school committees have not kept pace with the other departments of the municipal government.

I have dwelt at length upon the city's debt to the boys on the physical and intellectual sides because the evidences of obligation there seem less clear; but city life interferes with the development of a healthy moral nature. On the moral side the city owes to its boys protection, restraint and example, — protection from enticements and suggestions to vice and crime; protection from open saloons; from gambling dens; from lurid bill-boards, flaming with criminal and libidinous suggestions; and from low amusement resorts.

The boys are entitled to be taught by the firm hand of the courts a healthy respect for law, a regard for the rights of persons and property, the distinction between mine and thine. Much of the administration of justice has been feeble and vacillating, so that boys have mistaken leniency for encouragement. They have a right to be restrained for their own salvation.

And they have a right, in preparation for active citizenship, to the example of a city administration that is clean, honest, business-like, public-spirited, broad-minded, progressive.

The National Bureau of Commerce and Labor has recently published a bulletin of State and municipal indebtedness. It

shows how the debts of the cities of the country have increased at a constantly accelerating rate. It did not include their heaviest obligation, — what they owed to their own boys. Had they paid this debt earlier, they might have owed less to other people.

There is an ancient story — classical scholars know it well — of a Theban boy who was cast out by his parents and left to die in the wilderness. Preserved by fate, he came back in after years, unknowing and unknown, to become the slayer of his own father, the incestuous husband of his own mother, and to bring down the wrath of the gods upon his native city.

Who shall write the new Œdipus, the tragedy of the modern city boy, — for the Fates still live, and remain inexorable.

Appendix G.

SUGGESTIONS TO TEACHERS AND SCHOOL PHYSICIANS

REGARDING

MEDICAL INSPECTION OF SCHOOLS.

Prepared under the Direction of a Committee appointed by His Excellency Governor Guild, and issued by the Massachusetts Board of Education.

SUGGESTIONS TO TEACHERS AND SCHOOL PHYSICIANS REGARDING MEDICAL INSPECTION OF SCHOOLS.

In order to render the medical inspection required by chapter 502, Acts of 1906, effective and uniform throughout the State, His Excellency Governor Guild appointed a committee to prepare a circular of advice to the school physicians of the State.

This committee consisted of Dr. Henry P. Walcott, Dr. Charles Harrington and Dr. Julian A. Mead, representing the State Board of Health; Mrs. Ella Lyman Cabot, Mr. George I. Aldrich and Mr. George H. Martin, representing the Board of Education; and Dr. Robert W. Lovett, Dr. Harold Williams and Dr. W. H. Devine, representing the medical profession.

A sub-committee of this body arranged for conferences with the heads of departments and others connected with the medical schools and hospitals in and about Boston, and with physicians who have had experience in school inspection. These gentlemen have given freely of their time and thought, and have furnished to the committee the suggestions contained in this circular.

These suggestions cover the ground included in the clause in section 5 of the law: "The school committee of every city and town shall cause every child in the public schools to be separately and carefully tested and examined at least once in every school year, to ascertain whether he is suffering from defective sight or hearing, or from any other disability or defect tending to prevent his receiving the full benefit of his school work, or requiring a modification of the school work in order to prevent injury to the child or to secure the best educational results."

The Board of Education issues this circular in the assurance that it represents the highest professional authority in the specialties covered by the law, and commends it to the careful attention of all teachers, school physicians and other school officers.

The following are the subjects treated, with the names of the physicians who have contributed suggestions: —

1. *Infectious Diseases.* — Dr. John H. McCollom.

2. *The Eye.* — Dr. Myles Standish, Dr. Henry B. Chandler, Dr. Charles H. Williams, Dr. David W. Wells.

3. *The Ear.* — Dr. Clarence J. Blake, Dr. D. Harold Walker.

4. *The Throat and Nose.* — Dr. Samuel W. Langmaid, Dr. Algernon Coolidge, Jr., Dr. Frederic C. Cobb, Dr. George B. Rice.

5. *The Skin.* — Dr. John T. Bowen, Dr. James S. Howe, Dr. George F. Harding, Dr. Charles J. White, Dr. C. Morton Smith, Dr. John L. Coffin.

6. *Diseases of Bones and Joints.* — Dr. Edward H. Bradford, Dr. Augustus Thorndike, Dr. Charles F. Painter, Dr. George H. Earl, Dr. Robert Soutter.

7. *Children's Diseases.* — Dr. Thomas M. Rotch, Dr. John L. Morse, Dr. John H. Moore, Dr. Robert W. Hastings, Dr. Edmund C. Stowell.

8. *The Teeth.* — Dr. Edward W. Branigan, Dr. George A. Bates, Dr. Eugene H. Smith, Dr. Samuel A. Hopkins.

9. *Nervous Diseases.* — Dr. James J. Putnam, Dr. George L. Walton, Dr. Morton Prince, Dr. William N. Bullard, Dr. Edward W. Taylor, Dr. John J. Thomas, Dr. Walter E. Fernald.

10. *School Hygiene.* — Dr. Henry J. Barnes.

11. *School Furniture.* — Dr. Frederick J. Cotton, Mr. R. Clipston Sturgis.

12. *School Inspectors.* — Dr. George S. C. Badger, Dr. H. Lincoln Chase, Dr. Harry M. Cutts.

GEORGE H. MARTIN,
Secretary.

DISEASES.

Infectious Diseases.

Diphtheria. — It is a well-recognized fact that nasal diphtheria of a mild type without constitutional disturbance is one of the most important factors in causing the spread of the disease, and also that children very frequently have profuse discharges from the nose. It therefore follows that, in order properly to inspect the public schools, it is important that cultures should be taken from the nose in every case

where there is a persistent discharge, particularly if there is any excoriation about the nostrils.

The throat should be examined at varying intervals, depending upon the physical condition of the children. Any hoarseness or any thickness of the voice should cause an examination of the throat. If the tonsils are enlarged, if the mucous membrane is congested, if there is swelling of the palate, a culture should be taken. These symptoms precede diphtheria.

A child with positive cultures should be excluded from school until two consecutive negative cultures at an interval of forty-eight hours have been obtained.

Scarlet Fever. — If there is a sudden attack of vomiting, if there is any redness of the throat, if the child complains of headache, if there is an unexplained rise in temperature, the child should be isolated at once. Any desquamation (peeling of the skin) should be looked upon with suspicion. If there are any breaks at the finger tips, if on pressing the pulp of the finger there is a white line at the juncture of the nail with the pulp of the finger, particularly if this occurs in the majority of the finger tips, the child should be excluded from the school.

A child who has had scarlet fever should not return to school until the process of desquamation has been entirely completed, and all discharge from the nose and ears has ceased.

Measles. — Running from the nose and slight intolerance of light may call for an examination of the mucous membrane of the mouth for Koplik's sign. Koplik's sign, so called, is the presence on the lining membrane of the mouth, near the molar teeth, of minute pearly white blisters, without any inflammation around them. There may be only two or three of these blisters, and they may easily escape detection if the patient is not carefully examined in a good light. These blisters are certain forerunners of an attack of measles.

No child should return to school after an attack of measles until the desquamation is entirely completed, and the child has recovered from the intercurrent bronchitis.

Mumps. — Any swelling or tenderness in the region of the parotid glands (situated behind the angle of the jaw) should be looked upon with suspicion. It is important to notice any enlargement or swelling about Steno's duct (inside the mouth, opposite the second upper molar tooth), as this is a very frequent symptom of mumps.

A child should be excluded from school until one week has elapsed after the disappearance of all swelling and tenderness in the region of the parotid glands.

Whooping-cough. — A persistent paroxysmal cough, frequently accompanied with vomiting, no matter whether there is any distinct whoop or not, is indicative of whooping-cough. In cases of whooping-cough of long standing, even if there has been no distinct whoop, an ulcer on the band connecting the lower surface of the tongue with the

floor of the mouth is found in a certain number of cases. If there is no distinct ulceration, there may be a marked congestion of the band.

As long as there is any cough, the child who has had whooping-cough should be looked upon with suspicion.

Varicella (*Chicken Pox*). — A few black crusts scattered over the body are evidences of an attack of chicken pox. The crusting seen in impetigo must be differentiated from that of chicken pox.[1]

No child should return to school until all crusts have disappeared from the body, particularly from the scalp, for in this region the crusts remain longer than elsewhere.

The Eyes.

[Supplement to circular already issued.]

There are certain children who show normal vision by the ordinary tests, yet whose parents should be notified to have the eyes examined. These are: (1) children who habitually hold the head too near the book (less than twelve to fourteen inches); (2) children who frequently complain of headache, especially in the latter portion of school hours; (3) children in whom one eye deviates even temporarily from the normal position.

It should be remembered that the following symptoms are at times indicative of trouble with the eyes: (1) habitual scowling and wrinkling of the forehead when reading or writing; (2) twitching of the face; (3) inattention and slowness in book studies in a child otherwise bright.

The Ears.

See circular of directions for testing hearing, already in hands of teachers.

The Throat and Nose.

In all cases of acute illness the throat should be examined for the presence of the eruption of scarlet fever and measles and for the exudation or membrane of tonsilitis and diphtheria, and a culture taken in any suspected case of the latter.

The presence of discharge from the nose should be noted, and if it is thick and creamy, a culture should always be taken. In all cases of severe hoarseness, with difficult breathing, diphtheria should be suspected. If the discharge from the nose is only from one nostril, a foreign body in the nose should be looked for.

In cases of chronic nasal obstruction, as evinced by mouth-breathing, snoring, continual post-nasal catarrh or recurring ear trouble, the presence of an adenoid growth (third tonsil) should be suspected, and the child referred for special examination and treatment. As a rule, digital examination for adenoids should be made only by the operating surgeon. Obviously large tonsils, recurring tonsilitis and enlargement of the glands of the neck, suggest the advisability of

[1] See Diseases of the Skin.

referring the child to the family physician as to the proprietary of removing the tonsils.

Recurring nose-bleed should be referred for special treatment.

In cases of eczema about the nostrils, a cause may be sought in pediculi capitis (head lice).

In referring cases for treatment, school physicians, in addition to the diagnosis, should state the symptoms upon which the diagnosis is based, for the benefit of the family physician or specialist.

Diseases of the Skin.

Scabies (*the Itch*). — A contagious skin disease, due to an animal parasite which burrows in the skin, causing intense itching and scratching. The disease usually begins upon the hands and arms, spreading over the whole body, but does not affect the face and scalp. Between the fingers, on the front of the wrist, at the bend of the elbows and near the arm pits are favorite locations for the disease; but in persons of cleanly habits the disease may not show at all upon the hands, and its real nature is determined only after a most thorough and careful examination. There is a great variation in the extent and severity of this disease, lack of personal care and cleanliness always favoring its development. Scratching soon brings about an infection of the skin with some of the pus-producing germs, and the disease is then accompanied by impetigo, or a pus infection of the skin.

At the present time itch is very common and widespread, and, because of the great variation in its severity, mild cases have been mistaken for hives, eczema, etc., the real condition not being recognized, and the disease spread in consequence. All children who are scratching or have an irritation upon the skin should be examined for scabies.

It is very important that all infected members of a family be treated till cured, else the disease is passed back and forth from one to another. It is also important that all underclothing, bedding, towels, etc., things that come in contact with the body, be *boiled* when washed.

All cases of scabies should be excluded from school until cured.

Pediculi Capitis (*Head Lice*). — An extremely common accident among children, either from wearing each others' hats and caps, or hanging them on each others' pegs, or from combs and brushes. No person should be blamed for *having* lice, — only for *keeping* them.

The irritation caused by vermin in the scalp leads to scratching, which in turn causes an inflammation of the skin of the neck and scalp. The skin then easily becomes infected with some of the pus-producing germs, and large or small scabs and crusts are formed from the dried matter and blood. Along with this condition the glands back of the ears and in the neck become swollen, and may be very painful and tender.

The condition of pediculosis is most easily detected by looking for the eggs (nits), which are always stuck onto the hair, and are not readily brushed off. The condition is best treated by killing the living parasites with crude petroleum, and then getting rid of the nits. With boys, this is easy, — a close hair cut is all that is needed; with girls, by using a fine-toothed comb wet in alcohol or vinegar, which dissolves the attachment of the eggs to the hair. All combs and brushes must be carefully cleansed.

Children with pediculosis should be excluded from school until their heads are clean. By chapter 383, Acts of 1906, parents who neglect or refuse to care for their children in this respect may be prosecuted under the compulsory attendance law.

Ringworm. — A vegetable parasitic disease of the skin and scalp. When it occurs upon the skin, it yields readily to treatment; but upon the scalp it is extremely chronic. Ringworm of the skin usually appears on the face, hands or arms, — rarely upon the body, — in varying sized more or less perfect circles. One or more, usually not widely separated, may be present at the same time. All ringed eruptions upon the skin should be examined for ringworm.

When the disease attacks the scalp, the hairs fall or break off near the scalp, leaving dime to dollar sized areas nearly bald. The scalp in these areas is usually dry and somewhat scaly, but may be swollen and crusted. The disease spreads at the circumference of the area, and new areas arise from scratching, etc.

Another disease, somewhat like ringworm of the scalp, is known as favus, — a disease much more common in Europe than America. In this disease quite abundant crusts of a yellowish color are present where the process is active. The roots of the hairs are killed, so that the loss of hair from this disease is permanent, a scar remaining when the condition is cured.

Care must be taken to see that all combs and brushes are thoroughly cleansed, and to prevent children wearing each others' hats, caps, etc.

Children with ringworm should not be allowed to attend school.

Impetigo. — A disease characterized by few or many large or small flat or elevated pustules or festers upon the skin. The condition is often secondary to irritation or itching diseases of the skin (hives, lice, itch), and scratching starts up a pus infection.

The disease most often appears upon the face, neck and hands; less often upon the body and scalp. The size of the spots varies very much, and they often run together to form on the face large superficial sores, covered with thick, dirty, yellowish or brownish crusts.

The disease is contagious, and often spread by towels and things handled.

Children having impetigo should not be allowed to attend school until all sores are healed and the skin is smooth.

Diseases of the Bones and Joints.

All noticeable lameness, whether sudden or continued, may indicate serious joint trouble, or may be due to improper shoes. These cases, as well as curvatures of the spine, as indicated by habitual faulty postures at the desk or in walking, should be referred for medical inspection.

Spinal curvatures should be suspected when one shoulder is habitually raised or dropped, or when the child leans to the side, or shows persistent round shoulders.

Complaints of persistent "growing pains" or "rheumatism" may be the earliest signs of serious disease of the joints.

Some General Symptoms of Disease in Children which Teachers should notice, and on Account of which the Children should be referred to the School Physician.

Emaciation. — This is a manifestation of many chronic diseases, and may point especially to tuberculosis.

Pallor. — Pallor usually indicates anæmia. Pallor in young girls usually means chlorosis, — a form of anæmia peculiar to girls at about the age of puberty. It is usually associated with shortness of breath; the general condition otherwise usually appears good. Pallor may also be a manifestation of disease of the kidneys; this is almost invariably the case if it is associated with puffiness of the face.

Puffiness of the Face. — This, especially if it is about the eyes, points to disease of the kidneys; it may, however, merely indicate nasal obstruction.

Shortness of Breath. — Shortness of breath usually indicates disease of the heart or lungs. If it is associated with blueness, the trouble is usually in the heart. If it is associated with cough, the trouble is more likely to be in the lungs.

Swellings in the Neck. — These may be due to mumps or enlargement of the glands. The swelling of mumps comes on acutely, and is located just behind, just in front and below the ear. Swollen glands are situated lower in the neck, or about the angle of the jaw. They may come on either acutely or slowly. If acutely, they mean some acute condition in the throat. If slowly, they are most often tubercular. They may also be the result of irritation of the scalp, or lice in the hair.

General Lassitude, and Other Evidences of Sickness. — These hardly need description, but may, of course, mean the presence or onset of any of the acute diseases.

Flushing of the Face. — This very often means fever, and on this account should be reported.

Eruptions of Any Sort. — All eruptions should be called to the attention of the physician. It is especially important to notice erup-

tions, because they may be manifestations of some of the contagious diseases. The eruption of scarlet fever is of a bright scarlet color, and usually appears first on the neck and chest, spreading thence to the face. There is often a pale ring about the mouth in scarlet fever, which is very characteristic. There is usually a sore throat in connection with the eruption. The eruption of measles is a rose or purplish red, and is in blotches about the size of a pea. It appears first on the face, and is usually associated with running of the nose and eyes. The eruption of chicken pox appears first as small red pimples, which quickly become small blisters.

A Cold in the Head, with Running Eyes. — This should be noticed, because it may indicate the onset of measles.

Irritating Discharge from the Nose. — A thin, watery nasal discharge, which irritates the nostrils and the upper lip, should always be regarded with suspicion. It may mean nothing more than a cold in the head, but not infrequently indicates diphtheria.

Evidences of Sore Throat. — Evidences of sore throat, such as swelling of the neck and difficulty in swallowing, are of importance. They may mean nothing but tonsilitis, but are not infrequently manifestations of diphtheria or scarlet fever.

Coughs. — It is very important to notice whether children are coughing or not, and what is the character of the cough. In most cases, of course, the cough merely means a simple cold or slight bronchitis. A spasmodic cough, that is, a cough which occurs in paroxysms and is uncontrollable, very frequently indicates whooping-cough. A croupy cough, that is, a cough which is harsh and ringing, may indicate the disease diphtheria. A painful cough may indicate disease of the lungs, especially pleurisy or pneumonia. A long continued cough may mean tuberculosis of the lungs.

Vomiting. — Vomiting usually, of course, merely means some digestive upset. It may, however, be the initial symptom of many of the acute diseases, and is therefore of considerable importance.

Frequent Requests to go out. — Teachers are too much inclined to think that frequent requests to go out merely indicate restlessness or perversity. They often, however, indicate trouble of some sort, which may be in the bowels, kidneys or bladder; therefore, they should always be reported to the physician.

The Teeth.

Unclean mouths promote the growth of disease germs, and cavities in the teeth are centers of infection. Pus from diseased teeth seriously interferes with digestion, and poisons the system. It causes a lowering of vitality, and renders mental effort difficult. Diseased teeth, temporary as well as permanent, are frequently the cause of abscesses, and should be carefully watched and treated.

Irregularities of the teeth, especially those which make it impossible to close the teeth properly, lead to faulty digestion, to mouth-breathing, and to other diseases and evils which an insufficient supply of oxygen produces.

The first permanent molars are perhaps the most important teeth in the mouth, and are the most frequently neglected, because they are so often mistaken for temporary teeth. (It should be remembered that there are twenty temporary teeth, ten in each jaw, and that the teeth that come at about the sixth year immediately behind each last temporary tooth — four in all — are the first permanent molars.)

The teacher should be on the lookout for pain or swelling in the face. When the child keeps the mouth constantly open, an examination of the teeth should be made. When symptoms of indigestion occur, or physical weakness or mental dullness are observed, the teeth should be inspected. It should be remembered that disease of the ears, disturbances of vision and swelling of the glands of the neck may be caused by diseased teeth.

It should be known that decay of the teeth is caused primarily by the fermentation of starchy foods and sugars, and that the greatest factor in preventing dental caries is the removal of food particles by frequent brushing. Children should be prevented from eating crackers and candy between meals, and when possible the teeth should be cleaned after eating. Inspection of the teeth by a dentist should be made at least once in six months.

Nervous Troubles and Mental Defects.

Teachers and medical inspectors of the schools should investigate children who show certain physical and mental symptoms. Especially should they take notice of the presence of these symptoms in a child who did not formerly show them. The most important of these are the following: —

I. — Restlessness and inability to stand or sit quietly, in a previously quiet child, especially if to this is added irritability of temper and loss of self-control, as shown by crying for trifles, or inability to keep the attention fixed.

There may also be present quick, twitching movements of the muscles of the trunk, face, and especially of the hands, fingers, arms or legs. If severe these may cause the child to drop things, render its work awkward, or interfere with buttoning the clothes, writing or drawing. Such children are often scolded for being inattentive or careless.

These symptoms are the slighter ones of chorea (St. Vitus' Dance). With these should not be confounded other forms of twitching of muscles, such as the blinking of the eyelids, the slower twisting movements of the face or shoulders, or other parts of the body, often

called habit spasms, which may be due to defects of vision, adenoid growths or other reflex causes. These latter cases do not usually need to be withdrawn from school work, though often requiring treatment; while the former class should be removed from school at once, both for the child's sake, and to prevent an epidemic of imitative movements, such as sometimes occurs.

II. — Another class of symptoms requiring investigation are repeated faintings especially if the child's lips become blue; attacks, often only momentary, in which the child stares fixedly and does not reply to questions, or in which he suddenly stops speaking or whatever he is doing, and is unaware of what is going on about him. These lapses of consciousness may be accompanied also by rolling up of the eyes, drooling, or unusual movements of the lips, and often appear like a "choking" attack.

Sudden attacks of senseless movements of various sorts, such as twisting and pulling at the clothes or handkerchief, fumbling aimlessly at the desk, especially if there is no recollection afterwards of what was done, are often another expression of the same conditions.

Such attacks, particularly if repeated at varying intervals, even when not accompanied by complete loss of consciousness, are frequently as characteristic of epilepsy as the severe convulsions.

Epileptic convulsions usually involve the entire body in sharp jerking movements, with blueness of the face or lips, complete loss of consciousness, and are usually followed by a period of sleep or drowsiness, and are frequently accompanied by frothing at the mouth, biting of the tongue, and occasionally by wetting or soiling of the clothes.

Another class of convulsions is the hysterical, which are often difficult to distinguish. The hysterical convulsion, however, differs from the epileptic in the following respects. The hysterical patient often shouts, cries or raves, not only previous to but frequently throughout the attack, and is often able to reply to questions during the convulsion. The epileptic gives a single cry, immediately followed by unconsciousness and the spasm. The movements in the hysterical convulsion are often accompanied by bowing of the body backward, and very frequently simulate intentional or voluntary movements, such as tearing the hair, pulling at the clothes, and such things; while the epileptic movements are characterized by their jerking or twitching character. The hysterical patient, also, in place of a convulsion, may strike an attitude, such as of fear or entreaty, often accompanied by raving or singing. This again may follow the convulsion, taking the place of, and strikingly contrasted with, the almost invariable sleep of the epileptic, which is almost never seen in hysteria. Hysterical patients if they fall seldom injure themselves by the fall, as epileptics frequently do. Biting the tongue almost invariably indicates an epileptic seizure, as does wetting or soiling the clothes when it occurs.

Cases of epilepsy, whether mild or severe, require treatment, and

advice as to whether they should be removed from school. Many cases do not require to be withdrawn from school, and are benefited by its discipline.

III. — Excessive nerve fatigue, which is shown by irritability or sleeplessness, may indicate a neurasthenic condition, that is, a threatened nervous breakdown. Such symptoms may be due to irregular habits, want of proper sleep, lack of suitable food, poor hygienic conditions, or simply from the child being pushed in school beyond its physical or mental capacity.

Excessive fear or morbid ideas, bashfulness, undue sensitiveness, causeless fits of crying, morbid introspection and suspiciousness may also be symptoms of a neurasthenic condition, and call for investigation, and for the teacher's sympathy and winning of the child's confidence, to prevent developments of a more serious nature.

This nerve fatigue may result in a child being unable for the time being to keep up in its work in school.

Forgetfulness, loss of interest in work and play, desire for solitude, untidiness in dress or person, and like changes of character, are sometimes incidental to the period of puberty.

IV. — Mentally defective children in the public schools exhibit certain common characteristics. The essential evidence of mental defect is that the child is persistently unable to profit by the ordinary methods of instruction, as shown by lack of progress or failure of promotion through lack of capacity. After one, two or three years in school, they are either not able to read at all, or they have a very small and scanty vocabulary. One of the most constant and striking peculiarities is the feebleness of the power of voluntary attention. The child is unable to fix his attention upon any exercise or subject for any length of time. The moment his teacher's direction is withdrawn, his attention ceases.

These children are easily fatigued by mental effort, and lose interest quickly. They are not observant. They are often markedly backward in number work. They are especially backward in any school exercise requiring judgment and reasoning power. They may excel in memory exercises. They usually associate and play with children younger than themselves. They have weak will-power. They are easily influenced and led by their associates. These children may be dull and listless, or restless and excitable. They are often wilful and disobedient, and liable to attacks of stubbornness and bad temper. The typical "incorrigible" of the primary grades often is a mentally defective child of the excitable type. They are often destructive. They may be cruel to smaller children. They are often precocious sexually. They may have untidy personal habits. Certain cases with only slight intellectual defect show marked moral deficiency.

The physical inferiority of these defective children is often plainly shown by the general appearance. There is generally some evidence

of defect in the figure, face, attitudes or movements. They seldom show the physical grace and charm of normal childhood. The teeth are apt to be discolored and to decay early.

It is a most delicate and painful task to tell a parent that his child is mentally deficient. This duty should be performed with the greatest tact, kindness and sympathy. It would be a great misfortune for the school physician and teacher, as well as for the child, to designate a pupil as feeble-minded who was only temporarily backward.

Temporary backwardness in school work may be due to removable causes, such as defective vision, impaired hearing, adenoid growths in nose or throat, or as the result of unhappy home conditions, irregular habits, want of proper sleep, lack of suitable food, bad hygienic conditions, etc. Great care must always be used in order not to confound cases of permanent mental deficiency with cases of temporary backwardness in school work, due to the causes mentioned above, or those described under the head of excessive nervous fatigue.

In some cases, where the existence of mental defect is in doubt, accurate information is usually to be obtained in the early history of the child. The time of first "taking notice," the time of recognition of the mother, that of beginning to sit up, to creep, to stand, to walk and to talk should be learned. Marked delay in development in these respects is usually found in all pronounced cases of mental deficiency.

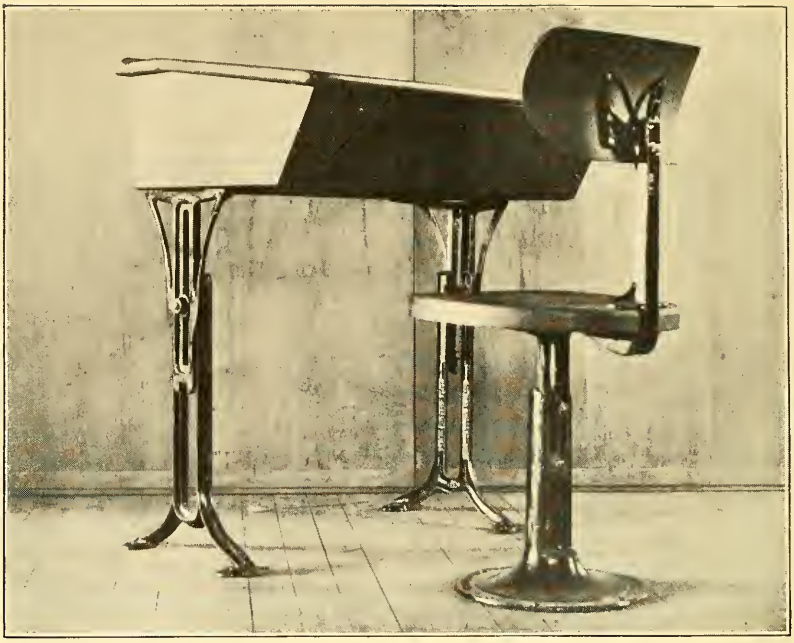
It may be found useful to require teachers to refer at stated intervals to the medical inspectors for examination all children who, without obvious cause, such as absence or ill health, show themselves unable to keep up in their school work, who are unable to fix their attention, or are incorrigible, — though it does not follow that all such cases have either physical or mental defects.

School Hygiene.

The school physician should notice the ventilating, lighting and heating of the rooms, and the location of the source of water supply with reference to possible pollution. In case pollution of the water supply is suspected, application should be made to the State Board of Health for an examination of the water. The general cleanliness of the schoolroom is of importance, and the admission of sunlight when possible is desirable.

The Closets. — The school physician, accompanied by the janitor of the school, should inspect the toilet rooms, to see if the floors are clean and dry, that the bowls of the closets are properly emptied and kept clean. (If outhouses are used, a large supply of earth will aid in keeping the place in a sanitary condition.) A few simple directions as to the cleanliness of the room should be posted in the closets.

Cups. — The use of one drinking cup for a number of children is to be condemned, as tending to spread the infectious diseases from child to child. The so-called hygienic drinking fountain, now in more





BOSTON SCHOOL-DESK AND CHAIR. TWO VIEWS.

or less general use in progressive cities and towns, is to be recommended where running water is available. If there is no running water, each child should use his own cup.

School Furniture.

Any proper sort of school furniture should furnish a seat of such height that the feet will rest easily on the floor. It should have a desk high enough not to touch the knees. It should have a desk low enough for the arm to rest on comfortably without much raising of the elbow; not, however, so low that the scholar must bend down to write on it.

The seat should be near enough so that the scholar may reach the desk to write on it without leaning forward more than a little, and without entirely losing the support of the back-rest. The seat should not be so close as to press against the abdomen nor near enough to interfere with easy rising from the seat. This means a distance of ten and one half to fourteen and one half inches from the edge of the desk to the seat back; it also means that the seat must not project under the desk more than an inch at most.

The seat should have a back-rest that will support the "small of the back" properly, without having the scholar lean back excessively. Whether it also supports the rest of the back or not is of small consequence; support of the back carried up to the level of the shoulder blades is likely to do more harm than good.

These are given as the minimum requirements. Whether or not regular adjustable furniture is in use, we should not be content with less than the accomplishment in one way or another of these primitive adjustments. More accurate adjustment is desirable, and less care in adjusting would be hard to justify, in the light of our present knowledge of the results of faulty attitude.

The furniture shown in the accompanying photograph conforms to these requirements. It was devised by physicians at the request of the Boston Schoolhouse Commission, and is adapted to the physiological requirements. The expense is no more than that of ordinary school furniture. It is for sale in the open market. In the Boston schools there are twenty-two thousand in use, and it is being adopted elsewhere.

Appendix H.

The Status of the Massachusetts Teacher.

Abstract from a Report of a Special Committee of the Massachusetts Council of Education, Feb. 16, 1907.

THE STATUS OF THE MASSACHUSETTS TEACHER.

As an introduction to this subject, a few statistics will be both suggestive and valuable.

Number of teachers in the public schools of Massachusetts during the year 1905-06: —	
Men,	1,192
Women,	12,657
Total,	13,849
Increase,	373
Number of teachers in high schools,	1,820
Increase,	82
Number of teachers in public evening schools,	1,789
Increase,	97
Number of teachers in public kindergartens,	486
Increase,	17
Ratio of normal graduates to whole number of teachers required,	47.54
Ratio of college graduates teaching in high schools to whole number of high school teachers,	77.47

In dealing with the extremely important question of "The Status of the Massachusetts Teacher," it has seemed wise to your committee to take up the work under certain general topics, to consider these topics in some detail, and to make such recommendations as the evidence appears to justify. The topics are as follows: —

1. Salary.
2. Tenure of office.
3. The sabbatical year.
4. Length of service.
5. Pensions.
6. Status of the teacher in the private schools of Massachusetts.

Salary.

As an introduction to the investigation, the great report of the National Educational Association committee on salaries, published a year and a half ago, was gone into, and so much of it as referred to Massachusetts was levied upon for the present purpose. This report printed complete returns from 467 towns and cities of over 8,000 inhabitants, or from 85.4 per cent. of all cities and towns of that size in the United States. In addition, special studies were made of three typical towns in each State of less than 8,000 population and a large number of typical rural towns. Fifty-six Massachusetts cities and towns of the first class afforded the committee complete reports, the summary of which was as follows: —

High Schools.	
342 men, receiving an average salary of	$1,608
717 women, receiving an average salary of . . .	887
1,059 teachers, receiving an average salary of . . .	1,120
Elementary Schools.	
90 men, receiving an average salary of	$1,839
6,637 women, receiving an average salary of . . .	621
6,727 teachers, receiving an average salary of . . .	637

Now, average salaries are never handed out in pay envelopes. Such returns are always misleading. They often conceal behind fair figures a very low state of affairs so far as individuals are concerned. Thus, in the table just read, while the average salary of grade teachers in the 56 towns of Massachusetts is $637 per year, as a matter of fact, nearly 1,000 teachers received less than $450, and nearly 5,000 received $600 or less, though the average amounts to $637 a year; that is, 66⅔ per cent. of the teachers received less than the average. The same is true in even greater measure of the high school teachers' salaries.

The averages of all salaries in this report are lifted by the relatively high salaries paid in the city of Boston. The great proportion of teachers receiving salaries above the average are credited to the metropolis.

The classified list of salaries in the National Educational Association report shows, for high school teachers: —

12, or 1 per cent., under $500.
177, or 17 per cent., under $700.
577, or 64 per cent., under $1,000.
462, or 35 per cent., above $1,000.

(Average in report of men, $1,608; women, $887; of both, $1,120; omitting Boston, $926.)

For elementary teachers: —

1,328, or 20 per cent., under $500.
3,079, or 46 per cent., between $500 and $600 (inclusive).
1,157, or 16 per cent., more than $600 and less than $800.
1,172, or 18 per cent., $800 or more.
(Most of these in Boston.)

Since the returns given in the National Educational Association report represent the salary situation as it existed three years ago, your committee sought to ascertain what progress, if any, the salary movement had made in the three past years. Inquiries of this character were sent to 120 towns and cities, and returns of exactly 100 cities and towns have been tabulated. In this report only the salaries of the grade teachers have been summarized. These represent nearly 90 per cent. of all the teachers, and it is these who are most vitally concerned in the movement for higher wages. These towns and cities employ about 7,000 women teachers in the elementary grades, or 75 per cent. of the number employed in the State. Boston has been left out of the computation. It was shown in the National Educational Association report that the inclusion of the salaries of the four great cities of New York, Chicago, Philadelphia and Boston (employing more than a quarter of the whole number of teachers) raised the average for the women teachers in the grades of 467 towns and cities nearly $100, or nearly one fifth. The influence of Boston upon the average of the State was equally marked, there being an increase of nearly $100 in the average salary of grade teachers when Boston was included with the other towns and cities. The average outside of Boston was $546.

Your committee's circular, besides calling for the schedule for principals and teachers in high and elementary schools, made

special inquiry as to whether salaries had been increased during the last three years (that is, since the National Educational Association report figures were gathered), and what the per cent. of the increase had been, approximately. Of the 100 towns reporting, 6 omitted to state the approximate per cent. of increase during that period; 28 reported no increase at all; 13 reported a movement in that direction now on foot, or a higher schedule to become operative at the beginning of the next school year. The superintendents of 57 towns and cities report an increase of salaries in the last three or four years, ranging from 5 to 25 per cent.

4 towns and cities report increases of 5 per cent. or less.
7 towns and cities report increases between 5 and 10 per cent.
35 towns and cities report increases between 10 and 20 per cent.
11 towns and cities report increases above 20 per cent.
Average increase for 56 towns and cities, 12.3 per cent.

In the following towns and cities there is at present a movement on foot to increase salaries, or increases have already been granted, to go into effect at some later date in the year: —

Arlington.	New Bedford.	Taunton.
Attleborough.	Salem.	Wakefield.
Lawrence.	Springfield.	Waltham.
Marblehead.	Somerville.	Winchendon.
Needham.		

Towns and cities reporting an increase of 5 per cent. or less: —

Billerica.	Groveland
Brockton.	Rockport.

Between 5 and 10 per cent. : —

Arlington.	New Bedford.	Winchester.
Easthampton.	Stoneham.	Worcester.
Lynn.		

Between 10 and 20 per cent. : —

Andover.	Cambridge.	Gardner.
Acton.	Chelsea.	Hopkinton.
Athol.	Chicopee.	Hyde Park.
Attleborough.	Concord.	Lawrence.
Boylston.	Danvers.	Leominster.

Littleton.	Palmer.	Spencer.
Lowell.	Peabody.	Southborough.
Malden.	Provincetown.	Watertown.
Marlborough.	Plymouth.	Weston.
Medford.	Quincy.	Winthrop.
Newburyport.	Randolph.	
Northampton.	Saugus.	

Twenty per cent. or more: —

Beverly.	Millis.	Pittsfield.
Everett.	Natick.	Stoughton.
Lee.	North Andover.	Williamstown.
Melrose.	North Attleborough.	

Average of all, 12.3 per cent.

It should be borne in mind, of course, that these reports of increases are often based upon the raising by $50 or $100 of the maximum salaries, and therefore not always to be taken as representing higher wages for all the teachers employed; though in the cities where most of the teachers were already receiving the old maximum, the new increase would be participated in by a large proportion of them.

A study of the minimum and maximum salaries paid in these 100 towns and cities shows 38 towns (including three or four cities) which pay a minimum salary less than $400, 28 (including some dozen cities) which pay a minimum of $400, and but 13 which pay a minimum of $500 or over. Thus 70 per cent. of the towns and cities considered offer a minimum of $400 or less. This does not mean, though, that every teacher who enters the service of such a town or city begins at that rate. Many of these have no schedules, or very flexible ones; and a teacher of experience who is wanted is often offered as high a figure as the maximum limit allows. But the trained girl without experience can look forward to very little better prospects than $400 a year, and often considerably less.

In asking for the maximum figure, the letter took care to ascertain whether that figure was accessible to all teachers after the same period of service. This question revealed the fact that the maximum salaries reported from nearly half of the Massachusetts towns and cities in the National Educational Association report were really salaries paid to teachers in the ninth grade,

or possibly in the three higher grammar grades. A maximum salary reported as $650 often meant only $550 for the great majority of the teachers. Out of the 100 towns and cities now being considered, 38 report a higher maximum for higher grades than for lower ones. The wisdom and justice of such a schedule is at least questionable. The classified returns show: —

28 paying	less than $500 maximum.	4 paying	. $625 maximum.
14 paying	. 500 maximum.	13 paying	. 650 maximum.
13 paying	. 550 maximum.	3 paying	. 700 maximum.
16 paying	. 600 maximum.	1 paying	. 725 maximum.

That is, in more than half of these places the maximum is $550 or less. But a good many of these are the smaller towns in the list.

The roll of towns and cities paying these several maximum salaries is as follows: —

Less than $500: —

Acton.	Groveland.	Palmer.
Athol.	Hopkinton.	Provincetown.
Billerica.	Lee.	Randolph.
Boylston.	Leicester.	Rockport.
Chicopee.[1]	Marblehead.	Spencer.
Dighton.	Methuen.[2]	Southborough.
Dover.	Middleborough.	Sudbury.
East Bridgewater.	Millbury.	Williamstown.
Gardner.	Newburyport.	Winchendon.

Maximum salary of $500: —

Arlington.	Middleton.	Peabody.
Attleborough.	Natick.	Saugus.
Braintree.	Needham.[3]	Webster.
Danvers.	North Attleborough.	Weymouth.
Easthampton.	North Andover.	

Maximum salary of $550: —

Andover.	Hyde Park.	Northampton.
Concord.	Lawrence.[4]	Norwood.
Chicopee.[3]	Lexington.	Taunton.
Gloucester.	Marlborough.	Woburn [3]

[1] Over $500 in seventh, eighth and ninth grades.
[2] Pays $500 in higher grades.
[3] Higher grades.
[4] Higher grades, $600.

Maximum salary of $600: —

Arlington.	Leominster.	Revere.[1]
Beverly.	Millis.[1]	Rockland.[1]
Bridgewater.	North Adams.	Salem.
Brockton.	Pittsfield.	Stoneham.[1]
Dedham.[2]	Plymouth.	Watertown.[2]
Haverhill.		

Maximum salary of $625: —

Fitchburg.	Wellesley.
New Bedford.	Winchester.

Maximum salary of $650: —

Dedham.[3]	Malden.	Somerville.
Everett.	Medford.	Springfield.[4]
Holyoke.	Melrose.[4]	Weston.
Lowell.[5]	Milton.	Worcester.
Lynn.	Quincy.	

Maximum salary of $700: —

Cambridge.	Lowell.[6]
Chelsea.	

Maximum salary of $725: Newton.

These figures are capable of a much more effective and illuminating summarization than here given. Enough has been shown, however, to warrant the conclusion that the minimum salary is almost everywhere too low to attract to the profession the right kind of material; that the increases are as a rule too small and too slow, and stop too soon, to keep the ablest teachers from leaving it. But there is much encouragement in the fact that this view is finding recognition in so many towns and cities, and is bearing fruit in the movement for and the adoption of higher salary schedules in the more progressive communities.

Yet it is safe to say that in almost no community has the increase of teachers' salaries, however generous, kept pace with the increase in the cost of living, though no investigation of this point has been made by this committee. It is an exceedingly difficult investigation to make. The report of the committee of

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[1] Higher grades.
[2] First six grades.
[3] Sixth, seventh and eighth grades.
[4] Pays more in seventh, eighth and ninth grades.
[5] Pays $700 after ten years.
[6] After ten years.

the Middlesex County Teachers' Association (see pages 102–106) showed for 22 towns and cities of Middlesex an average increase in salaries of grade teachers during the past ten years of 10.8 per cent., with the average cost of living increased during the same period by 19.3 per cent. It is probable that the latter figures represent roughly the increased cost of living in the towns and cities covered in the present report; though it is hard to reconcile the former figures with those published in the State report for 1904–05, which show an increase of over 18 per cent. throughout the State in women's salaries the past decade, instead of 10.8 per cent., as shown in the committee's report.

One thing the replies of superintendents make manifest: the salary question is coming in the forefront everywhere, and it is likely not to be settled until it is settled right. The teachers' claims are indisputable; but they should be pressed everywhere with dignity and moderation, without resort to clap-trap, with no taint of unprofessional methods, and with faith in the justice and generosity of the people when they understand.

There is another phase of the salary question which will do no harm for teachers, in the pauses of their argument for more money, to think upon. Newton Bateman puts it in this wise: —

> The higher law, by which teachers' salaries are graduated by the quality of service rendered and the law of supply and demand, will not be set aside for their benefit; that law is unchangeable and inexorable; it is a cold, relentless, emotionless principle of political economy, which has controlled the whole question of wages with a pitiless and despotic sway for centuries past. Hence the thing to do is to quit weeping and wailing over low wages and the non-recognition of the teachers' profession, so long the twin themes of unmanly lamentation, and go to work. There is plenty of room higher up. If you are willing to spend the time, thought, energy and perseverance vital to the best preparation and service, the world will recognize you, appreciate you, reward you.

And here is Dr. Harris's word upon it: —

> The teacher whose salary is low asks himself what he is going to do about it. He may submit in sorrow to his lot, or he may take a more heroic view of the matter, and consider that the lot he will occupy depends in large measure upon his own efforts. He will then try to improve his skill in teaching, and to make his field of learning more extensive and accurate. He will make enthusiastic culture studies in

literature and art, as well as in science. He will study to perfect himself in fine manners. He will pass under review his moral judgments, seeking to raise the standard of his character. He will seek to make himself the desired professional teacher. What teacher could not improve his position and find a more adequate salary for himself? Daniel Webster is reported to have said to those who advised him against leaving the country town in New Hampshire to go to the great metropolis of New England, it being urged that Boston was already full of lawyers: "Yes, but there is always room at the top." So it may be said, in general, that the upper story in the temple of education is not yet full of good teachers. There is, in fact, a great lack in number and quality for the highest positions and best salaries that are offered in the United States.

Tenure of Office.

Since 1886 it has been possible for Massachusetts school boards to elect teachers who have served in their public schools at least one year to serve "at the pleasure of the committee."

Only 82 cities and towns have availed themselves of this chance to do away with annual election of teachers. Of the 5,535 teachers affected, 2,318 are in Boston, so that, if we take Boston out of the list, less than one quarter of the remaining teachers of the State enjoy tenure of office. We miss the larger cities and towns that employ a great number of teachers. The objection that such a rule would make it difficult to get rid of teachers who become inefficient is not well founded. Provision is made for the dismissal of teachers; that power rests with superintendent and school board. The real cause that makes the removal difficult is public sympathy for the individual concerned. Nothing but a pension system will be effective in this respect.

It has been said that very frequently well-established educational principles cannot be carried into practical effect because of an unenlightened public sentiment or a lack of public spirit. So with tenure of office. It costs nothing to establish this rule; in fact, it means little to any but the teacher himself. But it means so much to him and to the profession that the public cannot afford to ignore the fact, and fail to put teachers on tenure after a sufficient period of probation, and do away with the annual round-up, in which Mr. Martin tells us there is neither justice nor good sense. We do not need to dwell on this subject

in speaking to a body of educators, but in some way it should be brought home to our various communities that they owe it to their teachers to make this addition to their school regulations at the first opportunity.

The Sabbatical Year.

So far as we have been able to learn, Boston and Cambridge are the only cities in the State that grant teachers leave of absence for study with pay. Boston gives one half the salary, Cambridge one third, the amount not to exceed $500. Cambridge adopted the rule in 1896, and since then 23 teachers have benefited thereby, 11 from the high schools, 6 from the grammar, 4 from the primary and 2 from the kindergarten. The provision is that any teacher who has served in the city for ten years may, on recommendation of the superintendent and vote of the board, have leave of absence for one year for purposes of travel or study. In Boston a teacher must have served seven years in the public schools of the city, "must make to the superintendent at such times and in such form as the latter may specify reports as to the manner in which the leave of absence is employed," and must "bind himself to remain in the service of the board for three years after the expiration of such leave of absence, or to refund such proportion of the amount paid him for the time included in the leave of absence as the unexpired portion of said three years may bear to the entire three, except in case of resignation from ill health or at the request of the board."

The gain to the teacher from this period of travel and study and of rest from the nervous strain of the class room makes directly for the good of the school, and in part atones for the meagre salary that makes it impossible for most teachers to take time for rest and study at their own expense. The example set by the colleges in this respect may well be followed in every part of the school world. The additional cost to city or town is not so great as to outweigh the positive gain to the schools. Here again public sentiment will help the school board to action.

Length of Service.

The dignity of the teaching profession is much impaired by the fact that many adopt it temporarily, with no thought of per-

manent service. Figures are incomplete, but partial returns may be quoted from the last report of the Commissioner of Education. The tables are for cities of 8,000 inhabitants or more, and include 333, or 61 per cent., of the total number of such cities. They refer to 4,656 men teachers and 46,694 women. Of these, 50 per cent. of the men have been engaged in teaching less than 13 years; of the women, 53 per cent. have taught less than 10 years. The average length of service is 14.7 years for men, 11.1 years for women.

Massachusetts returns were from 34 cities, a total of 7,350 teachers. The average length of service of men and women together is 12.9 years. Of the whole number 22.3 per cent. have taught less than 5 years, 23.6 per cent. from 5 to 9 years, 19.2 per cent. from 10 to 14 years, 65.1 per cent. have taught less than 15 years; to go on, 12 per cent. from 15 to 19 years, 13.8 per cent. from 20 to 29 years, 7.1 per cent. from 30 to 39 years, and 2 per cent. 40 years or more. We see that at the point where presumably greatest efficiency is reached, when ten or twelve years of experience have been added to the teacher's professional equipment, he suddenly drops out of the ranks. We lack data to show what has become of him, — whether in the first place he chose teaching as a makeshift, having something else in view, or whether some unforeseen attraction has lured him from his original purpose. The claims of the teaching profession were not strong enough to hold him. However great the opportunity to render noble service, — and nowhere is it greater than in work with the young, — however great the privilege of living with books and leading others to love and appreciate them, until some of the hardships are lessened and until the money compensation is increased, we shall continue to see men and women who are sorely needed in the schools drawn off to other fields. When a college graduate is asked to take a high school position, to teach every hour of the session each school day a variety of subjects, and is paid the munificent sum of $400 a year, $300 of which she finds must go for board, she is not likely to desire more than ten years of such service. Only those who live at home can afford to consider such positions; and the tables already quoted show that women teachers do remain in the same place, their total length of service almost coinciding

with length of service in their present position, including those who have never taught anywhere but in the present place. This brings us to the condition where we find schools filled with teachers who were residents when appointed, — home talent, — a state of things challenged by our great educators. Indeed, our tables include two cities not one of whose teachers had ever taught in any other place. We shall await with great interest fuller information on this subject of the length of time our teachers serve. And in the mean time we may wish that those who teach till they can do something else may begin with the other thing first; and that the men and women who mean to make teaching their life work may be permitted so to do with some degree of contentment and peace of mind, and with the consciousness of following a profession in every way worthy of them, and commanding the honorable and unfailing recognition of the community.

Teachers' Pensions in Massachusetts.

The most satisfactory pension system in the State at present is that of Harvard University. The following rules concerning retiring allowances were put in force on Sept. 1, 1899: —

1. Any person in the service of the university, and sixty years of age, who has held an office of the grade of an assistant professorship or of a higher grade for twenty years, shall be entitled to a retiring allowance of twenty sixtieths of his last annual salary in activity, and to an additional allowance of one sixtieth of his annual salary for each year of service in addition to twenty; but no retiring allowance shall exceed forty sixtieths of the last annual salary in full activity. In counting years of additional service, years of continuous service as member of a faculty, with the title of tutor, instructor or lecturer, or as assistant in a scientific establishment on an appointment not annual, may be added, at the discretion of the president and fellows, to the years of service as assistant professor or in a higher grade.

2. No person under sixty years of age shall be entitled to a retiring allowance; but the president and fellows may at their discretion pay to any person who, while in the service of the university, has become incapable of discharging his duties by reason of permanent infirmity of mind or body, or has resigned before the age of sixty, an allowance not exceeding that which he would be entitled to receive under Rule 1 if he had reached the age of sixty.

3. No person who has been in the service of the university less than twenty years as assistant professor or at a higher grade shall be en-

titled to a retiring allowance; but in computing the retiring allowance of a person who entered the service of the university, as a professor or at an equal grade, at an unusually advanced age, the president and fellows may at their discretion add a number of years, not exceeding ten, to his actual years of service; and such a person may be granted a retiring allowance as soon as his total service, including the constructive addition, reaches twenty years.

4. Any professor or officer of like grade entitled to a retiring allowance, who with the consent of the president and fellows shall give up a part of his work and corresponding part of his salary, shall have a right, upon his partial retirement, to a retiring allowance computed under Rule 1 upon that part of his full salary which he relinquishes; and upon his complete retirement his allowance shall be computed on his last full annual salary, and his years of partial retirement shall count as years of service.

5. The president and the fellows may, in the exercise of their discretion, retire wholly or in part any professor or officer of like grade who has reached the age of sixty-six, upon the retiring allowance to which he is entitled.

6. In the preceding sections, years of leave of absence are to be counted as years of active service; librarians, assistant librarians, curators, assistants in the scientific establishments, and administrative officers of long tenure whose salaries may be classed with those of professors or assistant professors, are covered by the phrases "at an equal grade" or "of like grade;" and the "last annual salary in full activity" means the last regular salary as professor, excluding annual grants and extra payments.

7. The president and fellows retain power to alter these rules, without, however, abridging the rights which individuals in the service of the university shall have acquired under them.

8. The obligation of the president and fellows to pay retiring allowances will be neither greater nor less than their obligation to pay salaries; so that, if misfortune shall compel a percentage reduction of salaries, retiring allowances will be reduced in the same proportion.

The system at Harvard was in existence before Mr. Andrew Carnegie's great gift, but is now, of course, supplemented and strengthened by that private benefaction. Other undenominational colleges in the State of Massachusetts also receive their proper share of Mr. Carnegie's gift. This magnificent gift from Mr. Carnegie has been extraordinarily effective in several ways: —

1. It has made the compensation of college professors more nearly adequate.

2. It has made suitable provision for the college professors' old age and illness.

3. It has improved the teaching staff of the colleges by the removal of professors who had already worked too long and too hard, and who long ago were entitled to a well-earned rest.

4. It has made the position of college professors more honorable and more attractive.

5. It has enabled college professors to live under more humane conditions with regard to proper expenditures.

May we not hope that Mr. Carnegie, by the same line of reasoning, will next give his attention to the needs of the public school teachers of America, whose duties are quite as exacting as those of college professors, whose needs are vastly greater and whose usefulness no intelligent person disputes?

Of the other forms of pensions for teachers in Massachusetts the most important are those of: —

1. The Boston Teachers' Retirement Fund Association.

2. The Boston Teachers' Mutual Benefit Association.

3. The Teachers' Annuity Guild of Massachusetts.

1. The Boston Teachers' Retirement Fund Association, according to the last report, has a fund of $189,689.84. It has at present 1,885 contributing members and 95 annuitants, — a total of 1,980 members. The sources of income are: —

(1) Reservations from the salaries of contributing members, $18 a year from each person, deducted bimonthly from the salaries.

(2) Payments in full by annuitants, in order to become entitled to annuities.

(3) Interest.

(4) Legacies.

Annuities and refunds are managed in the following way: —

Annuities. — Annuities are granted upon application to members retiring from the service, who have taught thirty or more years in the aggregate, including ten or more years in Boston public schools; also to members retiring from the service on account of disability, who have taught two or more years in Boston public schools.

The Board of Trustees has ordered that $180 per annum be determined as the amount of annuity to be paid during the

calendar year 1906, and that said sum be payable in monthly payments of $15 each; the first payment to be computed from a date to be fixed by the first day of the month following final favorable action.

Refunds. — Refunds are granted to retiring members in accordance with the following section of the law: —

> Any teacher who shall have been a contributing member for two years or more, who shall retire from the service of the city of Boston not being in receipt of an annuity, shall, upon application within three months after date of such retirement, receive one-half of the total amount paid by such teacher into said fund.[1]

2. The Boston Teachers' Mutual Benefit Association is open to "all teachers in the employ of the city of Boston." The treasurer's statement for 1905 shows that the permanent fund consists of $113,614.13, and that the Robert Charles Billings fund amounts to $8,795.69. The amount paid annuitants in 1905 was $13,475.91. In January, 1905, the total membership was 905 and the number of annuitants was 128. "The assessment is 1 per cent. of the yearly salary, paid in quarterly installments, except on salaries exceeding $1,000; on such excess ½ of 1 per cent. is paid, but no yearly assessment exceeds $20. The annuity now paid is $111.

The president, Mr. Maurice P. White, assistant superintendent of schools, Boston, says: —

> Could the non-members know the sad condition of some of the annuitants, they would welcome the opportunity of showing their fraternal feeling by joining the association, if only to help them. Professional benevolence should be something more than a phrase. Many of the present annuitants joined with the desire of helping the cause, and with no thought of ever needing the annuity. Now, in some cases, this regular income is all that prevents their being objects of charity. No young teacher can know these facts without feeling a desire to protect herself from similar conditions, and a wish to add to the comfort of those less fortunate than herself.

3. The Teachers' Annuity Guild of Massachusetts has a total membership of 1,119, including 120 annuitants. These annui-

[1] A copy of the act establishing this retirement fund will be found in the Appendix to the Rules and Regulations of the Boston Public Schools.

tants are divided into three groups, known as the $1,000, the $750 and the $500 groups. The annual assessment is $16, $12 and $8 for each group respectively. The annuities paid are $138, $103.50 and $69 for each group respectively. The Guild has a permanent fund of $100,000, but, as the annuities show, needs much more money. This Guild has members in 18 cities and towns of Massachusetts.

The appeal which the Annuity Guild makes for help is a strong one, and applies with equal force to that great body of teachers in Massachusetts to whom not even the meagre provision of any or of all of the various annuity associations applies. This appeal is so good and so far-reaching that we quote it entire: —

One of the most important problems of the day is how to provide for public school teachers after they retire from active service. Many teachers in our public schools are attracted to the work largely through their love of children and their desire to take part in furthering education.

When they enter the profession of teaching they have to face the fact that it is never likely to yield them a salary sufficient to enable them to save money for their old age. Each year they come nearer to the time of disability without being able to provide for it. A large number of them are helping to support some one besides themselves, and many are silently contributing from their small salaries to enrich the material needed by the school children. It is not too strong a statement to say that no grade teacher can lay by enough for the future, even at the expense of her own vitality and the consequent loss to the children under her care. The time and money required to fit the teacher for her work and the standards of living demanded of her by public sentiment leave her the poorest paid of all skilled laborers.

There is almost no citizen of the United States who does not owe much to the devotion, ability, patience and friendship of some teacher. It is for us to make sure that these same teachers do not suffer from anxiety about their old age and from hardship when it comes. In the absence of a State or city pension system, public school teachers are obliged to look to the public to help them in establishing a fund by which to pension those of their number who, after honorable service, are compelled by old age or nervous exhaustion to retire.

The Teachers' Annuity Guild is already organized to provide annuities in cases of disability or superannuation. Teachers from any part of the State may become members. The Guild has a permanent fund of $100,000, but needs half a million in order to provide adequate annuities.

A gift from you will help to lessen the hardship of retiring teachers, to express your appreciation of their great contribution to American civilization, and to encourage the entire teaching force of the State to work with renewed zeal.

The condition of superannuated teachers is well illustrated by the following cases: —

(*a*) One old teacher is "staying" with a family upon whom she has no claim. Some one saw her last week, wheeling the baby out. She looked gaunt and shabby. On being interviewed about the Guild, she replied: "The annuity is so little, but I do not know how I could get along without it."

(*b*) Another has a home with a sister, but is at the beck and call of all the nieces and nephews, grand-nieces and grand-nephews, who are not at all nice to her. She wished that some rich people would give to the Guild.

(*c*) Another, a very old teacher, does fancy work, which friends buy out of pity. A neighbor has her to dinner every Tuesday, that she may have enough to eat once a week.

(*d*) Another for a year has been taking care of a brother, who has just died after a painful illness. Now she is worn out, but feels that she must earn money to keep the home for an invalid sister (formerly a teacher) and herself. She goes to Boston to do some copying, but feels that she cannot do this every day, as it becomes cold and stormy. She looks burdened, and wishes the Guild could pay more money. Now it does not pay enough to hire a room.

(*e*) Still another is a very unwelcome dependent in a brother's home.

Pension Legislation in Boston.

The school committee of Boston have appointed a special committee to devise an adequate scheme of pensions, and to prepare a bill embodying the results of their arduous and most praiseworthy investigations. It is, therefore, highly probable that Boston will have in the near future an admirable system of pensions, wisely and generously designed to offer additional compensation to teachers, to relieve the overworked, to attract the best talent and to make possible more humane conditions for professional teachers throughout their careers.

The arguments for pensions for teachers may be summed as follows: —

1. Pensions are merely a part of adequate compensation.

2. They relieve the teachers' minds from the fear of an old age of poverty or dependence.

3. They tend to elevate the profession of teaching, by attract-

ing able men and women and by retaining them during the period of efficiency.

4. They make possible the retirement of the aged and the disabled without hardship, and so promote the dignity and general efficiency of the corps.

5. They tend to enable teachers to live in a manner to some extent becoming their extremely important and useful profession.

6. They allow teachers to spend more money for travel, for books, for additional professional training and for all those means of improvement so conducive to the welfare not only of the teachers personally, but of their pupils. The importance of the great law of imitation, whether conscious or unconscious, in the relation of pupil and teacher, cannot be overestimated.

7. Pensions afford a slight compensation to men and women of first-rate ability for sacrificing all the emoluments of other more financially profitable but less useful professions.

8. By the substitution of teachers on minimum salaries for those retiring on maximum salaries, the cost of a pension system is greatly reduced, while the general efficiency of the teaching force is promoted.

9. As the welfare of the children is the supreme law of the school, and as the pension system promotes the efficiency of the teaching force, it is evident that the welfare of the children, largely dependent as it is on the efficiency of the teaching force, demands this system.

10. No country and no cities in the world are better able to adopt the pension system than the United States and its great cities; but many foreign countries have already adopted a pension system, and are thus showing our country the way, when she ought to be in the lead.

Status of the Teacher in the Private Schools of Massachusetts.

Although the investigation of "the status of the Massachusetts teacher" must from the nature of the case be largely restricted to the status of the public school teacher, mainly on account of the accessibility of the information about public school teachers and the inaccessibility of information about private and

semi-private schools, still, the points of contact of public schools, colleges and private schools are so numerous, and the interests of their teachers are so similar, that no inquiry about " the status of the Massachusetts teacher " would be complete without some reference to the private institutions.

The following questions were asked about the private schools in Massachusetts: —

1. Will you kindly send the salary list of your school?
2. Have you any provision for pensions?
3. Are your teachers granted a sabbatical year? If so, on what terms?
4. Do your teachers have tenure of office?
5. What, in general, is the educational equipment of your teachers?
6. What is their length of service?
7. Are they usually members of professional and social clubs?
8. What degrees do your teachers hold?
9. Do they exhibit any literary, artistic, musical or other ability, outside of their regular duties?
10. Do they hold positions of trust in the community, in addition to their positions as teachers?
11. Have their salaries increased proportionately to the increased cost of living?
12. Are your teachers able to make a reasonable provision for illness and old age?

As a result of the answers sent by some of the best-known private school men in the State, the information obtained may be summarized as follows: —

1. The salaries paid in private schools, just as in public schools, are very frequently inadequate, and in almost every instance ought to be raised to meet the increased cost of living.

2. Provision for pensions is almost unknown in Massachusetts private schools.

3. The sabbatical year on half pay is not uncommon. In some institutions the sabbatical year with *full pay* is allowed. This excellent custom is to be commended most highly.

4. With regard to tenure of office, which appears to be much less general than is desirable, the following answers to the question, " Do your teachers have tenure of office? " give interesting information: —

(1) No.
(2) Permanent, three-year and one-year appointments.

(3) Reappointed each year; but permanency results, for no good teacher is disturbed.

(4) Yes; while satisfactory.

(5) No; they are retained while they do satisfactory work.

(6) Elected annually, but custom makes it practically a tenure, if the teacher is successful.

5. The educational equipment of the teachers in private schools is generally excellent. Many of these teachers have not only the degree of A.B. or S.B., but also that of A.M. or even Ph.D. The head masters of these schools sometimes hold the higher degree of Litt.D., S.T.D., etc.

6. The length of service in private schools, as in the public schools, varies greatly. The following answers show the conditions: —

(1) Twelve years, 7, 4, 3, 2.

(2) Variable.

(3) Present teachers appointed 1901, 1902, 1903, 1905, 1906.

(4) As long as life lasts.

(5) Forty-nine years, 23, 23, 14, 6, 4, 1, 1.

(6) From 26 to 2 years; most at least 10.

(7) So far, an average of 10 or 12 years.

(8) My data are imperfect. During the history of the school the length of service has ranged from 1 to 30 years, or thereabouts; it has frequently been from 4 to 8 years; in many cases it has been but a year or two. The present faculty is comparatively new. It is our policy now to retain good teachers as long as possible, if it is only a question of salary.

7. Membership in professional and social clubs is the rule, rather than the exception.

In connection with this subject it is only fair to state that many teachers, both in the public and in the private schools, in view of the multiplicity of educational organizations and the increasingly varied calls of modern life, feel the constantly increasing appeals for contributions to the support of additional educational organizations a burden that is assuming serious proportions. For example, the writer of this report contributed to the support of sixteen different educational and social organizations last year, all of which considered their claims paramount, and all of which are commendable and useful.

8. Literary, artistic and musical activity are not uncommon among the private school teachers. Some have written books, others contribute articles to magazines; others, according to a well-known head master, "are human, like other people." Many take no part whatever in such activities.

9. Positions of trust in Church and State are occasionally held by teachers. Among such positions reported to me may be mentioned: chairman of town sewer committee; president of town library association; president of village improvement society; member of school board; member of governing board of churches; president of school committee, etc.

10. The testimony is almost unanimous to the effect that salaries have not increased proportionately to the increased cost of living.

11. The opinion is very generally expressed that teachers cannot make reasonable provision for illness and old age. The answers to the question in this topic may prove suggestive to those of us who are living too luxuriously: —

(*a*) No.
(*b*) No; unless unmarried, or with other sources of income.
(*c*) They certainly ought to.
(*d*) By economy, yes; some do, others do not.
(*e*) Yes.
(*f*) Only three can make any such provision.
(*g*) Doubtful, except that all have life insurance.
(*h*) Hardly.
(*i*) I am not able to say.

Statistics gathered in Springfield show that in this respect public school teachers are no better off. The average annual savings of 120 grade teachers receiving an annual salary of $600 were found to be only $12.42, which means that most teachers are able to lay up nothing. The savings of one year are often more than dissipated by the unexpected expenses of the next.

Recommendations of the Committee.

The committee makes the following recommendations: —

1. Higher salaries.
2. Pensions for teachers throughout the State.
3. Tenure of office.

4. The sabbatical year.

5. Higher professional qualifications, in response to improved conditions.

6. More money for education.

FREDERIC ALLISON TUPPER, *Chairman,*
Head Master, Brighton High School, Boston.

LOEA P. HOWARD,
Master, Charles Sumner School, Boston.

BERNARD M. SHERIDAN,
Superintendent of Schools, Lawrence.

Mrs. CAROLINE S. ATHERTON,
Boston.

WILL S. MONROE,
State Normal School, Westfield.

Appendix I.

REPORTS ON SPECIAL SCHOOLS,

INCLUDING

A REPORT ON THE TEACHING OF THE ADULT BLIND AT THEIR HOMES.

Compiled by the Secretary of the Board.

SPECIAL SCHOOLS.

The Commonwealth provides for children whose physical or mental defects forbid their attendance upon the public day school in the following special institutions, to which eligible persons may be sent in accordance with the provisions of chapter 39, Revised Laws, and upon recommendation by the Board of Education to the Governor: —

1. The American School at Hartford, Conn., for the Deaf, Job Williams, L.H.D., Principal.
2. The Clarke School for the Deaf, Northampton, Miss Caroline A. Yale, Principal.
3. Horace Mann School for the Deaf, Boston, Miss Sarah Fuller, Principal.
4. Sarah Fuller Home for Little Deaf Children, Medford, Miss Eliza L. Clark, Matron and Principal.
5. New England Industrial School for Deaf Mutes, Beverly, Miss Martha O. Bockee, Superintendent.
6. The Boston School for the Deaf, Randolph, Thomas Magennis, Superintendent.
7. Perkins Institution and Massachusetts School for the Blind, Boston, Almorin O. Caswell, Acting Director. Edward S. Allen, Director, from July 1, 1907.
8. The Massachusetts School for the Feeble-minded, Waltham, Walter E. Fernald, M.D., Superintendent.

THE AMERICAN SCHOOL FOR THE DEAF.

Job Williams, Principal.

The whole number of pupils in the school for the year ending June, 1906, was 160; of these, fifty were from Massachusetts.

The general health of the school was good throughout the year, and the work of the classes was carried forward with commendable progress.

The method of instruction remains in the main the same. Of the seventeen classes in school, nine conduct all their recitations by speech and writing. A very large proportion of the

rest of the school receive daily instruction in speech and lip-reading from special teachers, with substantial results. The speech of these is as good and often better than that of those whose exercises are all oral, and who frequently fall into very careless habits of speech, the teachers lacking the time to correct defects, whereas the special teacher's attention is given to that very point. Not all pupils succeed equally well in the acquisition of speech and speech-reading, any more than in other things, and there are not a few who never acquire enough of speech to be of any practical benefit to them. Such had better use other and more rapid means of acquiring mental development and knowledge.

All the pupils use signs freely out of school hours. They pick them up from one another. The older pupils read the current news and discuss it with each other, while the younger ones stand by, watching with eager interest all that is said, and gaining knowledge which at that stage of their school course would be entirely beyond their comprehension if expressed in speech or writing.

There is an impression in some quarters that only dull pupils use signs. That is very far from the truth. The brightest pupils use them most freely, and delight in the easy, rapid, and to them most enjoyable, way of communicating with each other. The rapid interchange of ideas quickens their mental faculties and prepares them for better work in the schoolroom. There is a place — a very important place — for the sign language in the lives of the deaf. It is the abuse and not the proper use of signs that has sometimes brought them into disfavor where they are understood. The great majority of those who would do away with signs do not know or understand them, and consequently do not appreciate them. Signs have the power of far wider and more accurate expression of thought and fact than such persons are aware of.

As a rule, the pupils take great interest in their industrial work, and enjoy it, and in the cultivation of the hand, the eye and the judgment are gaining that which will be of great benefit to them when they shall have finished their school course and take up life's duties. In the case of some dull pupils it will be more of a help to them toward leading an independent, useful

life than their slender acquisitions in the class room. The value of manual training is being more and more appreciated in the schools of the country, both for the hearing and for the deaf. Our boys receive instruction in sloyd and cabinet making, and the girls in ironing, cooking, sewing, dressmaking and the lighter parts of housework.

THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

Report for the Corporation.

To the State Board of Education.

The number of pupils in the Clarke School during the past year has been 148; of these, 114 were supported by the State of Massachusetts, 11 by Vermont and 5 by New Hampshire. The number of pupils paying tuition was 17; there is also 1 pupil for whom no charge is made.

Five pupils were graduated in June, all of whom showed by their command of English and their facility in lip-reading the results of careful training and diligent attention. Their ability to communicate with others by speech, while not superior to that of the average graduate of the school, awakened lively admiration in those who conversed with them. It is impossible for any sensitive person to witness the success attending the efforts of these teachers, continued through long years for each pupil, to overcome the limitation by which those boys and girls were handicapped for life, without being deeply stirred by gratitude to the founders of the school, and especially to its great benefactor, John Clarke. In many cases the effort to articulate distinctly is still visible. This does not, however, in the least detract; it rather enhances the sense of wonder at the accomplishment secured by the patience and zeal of teachers and pupils, co-ordinated to the one end of free converse with the normally endowed. The most self-denying consecration on the part of teachers and the most unremitting devotion to this end on the part of pupils are essential to the results scarcely less wonderful than the miraculous healings by our divine Lord; and in the case of these pupils it may as truly be said, as in the time of Christ: "He maketh both the deaf to hear and the dumb to speak." It is His influence and His life that bring

about these results, and open the door into human society for so many who were confined within narrow limits, and deeply felt their exclusion from the delights of social fellowship.

It is good to know that in a large majority of the schools for the deaf in our country this same process is going on; that an effort is made to teach speech to the deaf to a number exceeding 8,000, — nearly 90 per cent. of all deaf pupils in the United States. It cannot be assumed that in all these cases the same attainment will be realized as in the graduates of the Clarke School; but the patience and heroism required for the daily teaching of this large number of pupils may well be regarded as among the finest products of Christian education. That Massachusetts has great reason to be proud of the Clarke School has often been asserted in these annual reports. How far the leaders of education in this State realize this fact is uncertain; but every year brings forth evidence that those outside of the State most deeply interested in the education of the deaf highly honor the methods of teaching here in vogue, and recognize the leadership of the Clarke School. At the March meeting of the corporators of the school the following communication was received from the president of the American Association to promote the Teaching of Speech to the Deaf: —

Gentlemen: — As is undoubtedly well known to your body, the work of teaching speech and speech-reading to the deaf throughout the country has in recent years had a phenomenal growth. The number of deaf children now being taught speech includes fully two-thirds of all pupils under instruction in American schools. With this great growth in a quantitative sense there has naturally resulted a scarcity of teachers, more especially of fully and properly trained teachers, in consequence of which the work the country over has undoubtedly suffered.

The American Association to promote the Teaching of Speech to the Deaf has for some years been directing its attention to plans for meeting this unfortunate condition of affairs; and, as in times past, with similar situations confronting it, again turns to Clarke School for aid. The creation of a fund through the munificence of Dr. Alexander Graham Bell, a member of our association and of your own board, known as the "Melville Bell Memorial Fund," enables the association at this time to submit the following proposals, looking to the enlargement of your department for the training of teachers in speech work: —

1. That the department devoted to this work shall be enlarged to at least double its present capacity, thus enabling eight or ten students to place themselves under training annually, and that, as facilities increase, the number shall be increased to at least eighteen or twenty.

2. That the course of training to be pursued shall be submitted to the board of directors of the association for approval; and that a suitable diploma, duly signed by officers of your school and of the American Association, shall be granted to all students satisfactorily completing the course.

3. That students admitted to training shall be young men and women of high moral character, of liberal education, and of such natural aptitude for teaching as shall promise future success in the work.

4. That the period of training shall be from one to two years, as may hereafter be determined; and that the staff of your school shall be increased to fully meet the demands of the enlarged department.

5. Should the above proposals meet with the approval of your corporators, as we sincerely hope they may, the American Association to promote the Teaching of Speech to the Deaf will agree and bind itself to pay annually to your corporation, so long as the terms of the agreement shall remain in force, the following sums: for ten students and not less than eight thus trained, fifteen hundred dollars; and for any number more than ten and not over twenty, at a per capita rate of one hundred and fifty dollars; these amounts to be paid semi-annually, on presentation of properly vouched bills; this in addition to charges made by your board to such students.

6. That this agreement shall go into effect at the opening of your next term of school, and that it may be discontinued at the pleasure of either party upon six months' notice being given.

Respectfully submitted,

A. L. E. Crouter, *President,*

American Association to Promote the Teaching of Speech to the Deaf.

The normal teaching done by Miss Yale and her assistants during the past fourteen years has added much to their labors, and this proposed enlargement of the training for teachers would necessarily increase the burden laid upon them. For this reason, and because it has been felt that the facilities in the way of suitable rooms and equipment for the regular work are still inadequate, the corporators accepted with some hesitation, for the trial of the experiment, the proposition of the directors of the association.

It is certainly appropriate to call the attention of the Board of Education to the significance of this movement on the part

of the great association for the promotion of speech teaching, made up of members from all the States. That the fortieth year of the Clarke School is to open with a normal class whose tuition (the normal students pay for their own board) is to be paid from a fund in the control of the American Association to promote the Teaching of Speech to the Deaf, is a fact of which every citizen in Massachusetts may well be proud. It is plain enough that the proper place for normal training for teachers of the oral method is on Round Hill in Northampton. Here is a delightful situation. Here is a corps of eminent teachers and a large body of deaf pupils, almost entirely wards of Massachusetts. Here is a model school, conducted on the oral method, which has been in successful operation since 1867. Here are the opportunities for observation and practice so essential to the best progress of the students in training to be teachers. Here since 1890 a small number of teachers has been yearly trained. These facts command the attention and the action of the great body of teachers of the deaf throughout the United States. If this movement for normal training here is to make headway, there is additional reason for the erection of a large school building, in whose ample rooms the observation and conduct of schoolroom work by the normal pupils could be efficiently promoted without encroaching on the space and oxygen needed for each of the ordinary Clarke pupils.

This demand for normal training made by the great body of American teachers of the deaf should make a strong appeal to the benevolent citizens of Massachusetts to show themselves loyal in a large way to one of their own institutions. It is a time of great expansion and enlargement in education. It is a time when the interests of every unfortunate class come home to the hearts of good people as never before. It is a time of immense growth in wealth and a corresponding growth in benevolence. The needs of the deaf children of this State, the service and heroism of the teachers of the deaf everywhere in the Union, the admiration and honor extended from these teachers to the Clarke School, the long accumulation of unremunerated advantages put by the Clarke fund at the disposal of the deaf wards of this State, the call of the needy States to this rich State for help, — make now an urgent appeal to

the wealthy, large-hearted citizens of Massachusetts to recognize by gifts worthy of themselves and their educational history. It certainly is now an appropriate time for some large-minded citizen to range himself by the side of John Clarke, and put a building or a fund at the disposal of the corporators that shall supply to both the normal and the ordinary training every facility.

As to the number of pupils which such a normal class would receive if an adequate equipment could be secured, no certain estimate can be given; but at the time of this writing it seems probable that at least ten will enjoy the provision of the American Association for the coming year. If complete arrangements could be made, the number would probably slowly increase every year. These students cannot long pursue the course of training without fully knowing the singularly exacting nature of such a life work, and those who should complete the course will naturally be persons of self-denying zeal and consecration. It is probable that a generous provision for the training of teachers of speech must soon be made somewhere in the United States. The question seems to be whether Massachusetts will have the honor of directing this great work. Nor is that exactly the question, for already through the eminence and labors of teachers in this school the honor rests with this Commonwealth. The question is rather whether the generous citizens of Massachusetts will be magnanimous enough to recognize the beginning made by these teachers and endorsed by the American Association, and will secure the further distinction of causing that beginning to expand into a department which shall be regarded throughout the Union as the best place for the training of teachers of speech to the deaf.

I cannot close this report without referring to the exhibition of sloyd, drawing and industrial work by the pupils of the school at the time of the graduation exercises in June last. The accuracy of the drawing was marked, and covered a large variety of subjects. The sloyd work represented high attainments by a large number of pupils. The wood carving both of the boys and girls received much praise. The cabinet work was admirable. Either of two tall, artistic clock cases exhibited would have done credit to any skilful workman of years of experience. It is

interesting to record that one of these was the product of the labor of the boy from Syria who has been for years a beneficiary of the school. The attainment of such excellence in cabinet work by this boy, who was sent to us from his native land with the hope that he will be ultimately of service to the deaf children of Syria, is, if we may so express it, a by-product of the training in the Clarke School, but a by-product which may well call forth a lively appreciation of the beneficience of this training.

All of which is respectfully submitted,

FRANKLIN CARTER.

HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

REPORT OF MISS SARAH FULLER, PRINCIPAL.

The Horace Mann School opened on the thirteenth day of September, 1905, with 145 pupils, — 75 boys and 70 girls. During the year 12 pupils were withdrawn and 21 were added, making at the close of the year in June, 1906, 154 pupils.

The five manly, interesting boys who were graduated on the twenty-fifth day of last June are fair examples of results obtainable by the methods of training employed in this school. Three of these boys are totally deaf, and began their school life with no knowledge of spoken or written language. They have acquired an intelligible use of speech and an understanding of the speech of others, by watching the movements of the mouth; and, in addition, have completed the course of study required for graduation from the public schools of Boston. The two other boys had been debarred by deafness from continuance at schools for hearing pupils, one from Lawrence and one from Boston. In this school they found grades corresponding to those which they had left, and by the study and practice of speech-reading they were enabled to complete their course and go out into the world to take an intelligent share in its duties and responsibilities. Each of the graduates had well-formed plans for his future, and was ready and willing to accept whatever difficulties these might bring to him.

The close personal relation between pupil and teacher in the Horace Mann School fosters the growth of individual aims, and strengthens uprightness in character and purpose. No better

evidence of the permanence of the influence of the school could be asked than that shown by the good and useful lives of a very large majority of those who have gone out from it.

The work in drawing during the past year has been very satisfactory. The services of a well-equipped, skilful teacher have given a fresh impulse to this department of study, and every grade has made gratifying progress. From the necessities of their condition deaf children are led to observe details of size, form, color and relation. They are therefore in a measure prepared to receive this training of the hand, which is such an important part of the education of all children; but more than others deaf children need to be given every opportunity to develop and to use whatever power they possess, in order to meet demands which they in common with others will find on leaving school and going out into the working world. Drawing affords one of the valuable means for this preparation, as it requires care and accuracy in expression and execution.

All of the work in this school is a testimony to efficient teaching, given by progressive, faithful instructors, and justifies the place it holds in the public school system of Boston.

The case of representative work sent from this school to the St. Louis and to the Portland expositions has been returned, and, with the medals and diplomas it received, is now an interesting part of the history of the Horace Mann School.

SARAH FULLER HOME FOR LITTLE DEAF CHILDREN.

From the Eighteenth Annual Report of the Executive Committee, June, 1906.

In the eighteen years since its foundation the average age of the pupils of the Sarah Fuller Home has been three and one fifth years, and it is now generally acknowledged that the nursery instruction given such very young children has been of great benefit in stimulating their powers of observation, and in giving them facility in reading from the lips and command of their vocal organs; while the gentle discipline of Miss Clark and her assistants has taught them self-control, and has always made a well-mannered, happy family from often very difficult elements.

In dealing with these children, it is necessary to recognize that nearly all have extremely high-strung nervous temperaments, often the result of the diseases which have caused their deafness; and consequently all possible latitude consistent with discipline is allowed, and yet no severe discipline is required. The children are ruled by love, and restrained by firm insistence that each shall regard the common weal.

The training of the school is not only the mental discipline, which develops their sense of touch and sight, and thus in no small degree compensates them for their loss of hearing, but the steady moral discipline of the home is of incalculable advantage in their higher development. Their progress during the past three years in lip-reading and articulation is proof of the advantage that has come from the services of Miss Aymar, a highly proficient kindergarten teacher.

Kindergarten work is particularly effective in the teaching of deaf children, since, in a pleasant way, they learn to gain conscious control of themselves, their hands and of their voices; for the work is correlated with instruction in language and in lip-reading, and it is believed that the noticeable improvement in the tones of the children's voices is due to this instruction. In this work deaf children are found quite as proficient as hearing children, especially in the use of kindergarten material.

To improve this method of instruction a special room is needed, for that used for the purpose serves also for living and for play room.

The results of the work of the home have been so successful that it has been decided that children should be permitted to remain a longer time under its influence, and therefore the age limit of pupils has been extended from five to six years. This restricts somewhat the number of individuals who can receive its benefits, since the present number of twelve resident pupils cannot be exceeded.

During the past year there have been three day pupils whose parents have moved to the neighborhood so that their children may attend the school. It is hoped that this example may be followed by other parents whose circumstances and occupations permit, since in this way the usefulness of the home can be greatly increased.

Five new pupils have been admitted during the past year, and three have been transferred to other schools.

The farm land immediately to the eastward of the home property being laid out for sale in house lots, 26,500 square feet of this land, lying between the home lot and a proposed road, has been purchased for the protection of our property, at a cost of $2,500. By this purchase the reserve fund has been materially reduced, and it is to be hoped that especial endeavors will be made during the ensuing year to increase the number of annual subscribers, and thus not only assure steady income from this source, but by extending the interest in the work of the home increase the possibility of special contributions. Such contributions are much needed, not only to make good the reserve and to build a new class room, but to increase the Sarah Fuller Home fund.

The board gives renewed thanks to Dr. Kennedy and Dr. Sargent, who have generously continued their gratuitous professional services.

The directors regret the resignation from the board of Miss Julia O. Hunnewell, who has rendered most useful services.

Thanks to the generosity of Gen. Samuel C. Lawrence, the trees at the home have been saved from threatened injury by gypsy moths.

Edmund M. Wheelwright.

NEW ENGLAND INDUSTRIAL SCHOOL FOR DEAF MUTES.

This school receives an annual appropriation from the State. By a resolve of the Legislature of 1906, $3,500 was granted, the following account of which is sent by the treasurer, Mr. Samuel P. White, Beverly: —

Salaries of teachers and wages of help.	$3,000
Coal, lighting, groceries at school, ...	500
Total, ...	$3,500

THE BOSTON SCHOOL FOR THE DEAF, RANDOLPH.

To the Massachusetts State Board of Education.

The Boston School for the Deaf, at Randolph, Mass., for the year 1905–06, opened on September 15 with 77 pupils. Eleven pupils were admitted during the year, and 4 were dismissed. The total number on the roster at the close of the school year, June 20, 1906, was 84.

The health of the children has been very good. The only serious illness during the year was pneumonia, of which there were three cases, all successfully treated by the school physician, Dr. James S. Sullivan of Randolph.

The otologist of the school, Dr. T. J. Reardon of Boston, found only two cases among the children requiring surgical treatment, and this caused no interruption of the studies of the children.

The location of the school, on a plateau of land high above the town and surrounding country, is accountable in a great degree for the remarkably healthy condition of the pupils. The farm of several cultivated acres supplies the school with fresh vegetables during the summer and winter vegetables in abundance; and the dairy insures a daily supply of fresh milk without stint. Visitors to the school remark how healthy, happy and cheerful the pupils appear, not only at recreation in the school yard or romping in the fields, but also in the class rooms.

The work done during the year has been very satisfactory. The course of study — the seventh grade — as outlined in the last report was thoroughly carried out. The school has lost a valuable collection of the pupils' work, which was sent to the St. Louis Exposition and afterwards (by request) loaned to the Lewis and Clark, Portland, Ore., Exposition, only a small part of which was returned. The missing part of the exhibit consisted of five bound volumes of language work, three bound volumes of arithmetic work, three bound volumes of geography work, four bound volumes of mounted work, and the exhibits in sewing, sloyd and basketry. Mention is made here of the loss of this valuable exhibit, in the hope that some reader of this report connected with other schools for the deaf may be able to trace the lost goods, and notify us accordingly.

On Dec. 14, 1905, His Excellency Governor Douglas, with Secretary Robinson and the executive secretary, E. Hamlin, Esq., and five members of the council, paid an official visit to the school, and left with words of approval for the scholarship of the pupils, the sanitary condition of the building and the efficiency of the teachers exemplified in the class work exhibited.

On May 9, 1906, Mrs. Kate Gannett Wells of the State Board of Education visited the school, and expressed her great satisfaction not only as to the class work done by the pupils, but also as to the home-like appearance of the school and its surroundings. In this it differs from most public institutions, as is apparent to all visitors.

June 5, 1906, through the kindness of Mr. Roberts, proprietor of Randolph Grove, the pupils had their annual picnic, and passed a merry and happy day.

During the summer four of the teachers attended the convention of the American Association to promote the Teaching of Speech to the Deaf, held at Pittsburg, Pa., and derived much benefit from their visit. Aiming at the highest proficiency in the science of teaching the deaf, the teachers of this school avail themselves of every opportunity to perfect themselves in their vocation.

The course of study for the ensuing year for the highest grade (the eighth) is as follows: —

Language. — Original composition. Letter writing. Reproduction of readings on assigned topics.

Grammar. — Hyde's "Practical Lessons in English."

Arithmetic. — Smith's "Intermediate Arithmetic."

Geography. — Redway's "Advanced Geography."

History. — Montgomery's "Leading Facts in American History."

Science. — Outline lessons in anatomy, physiology, zoölogy and botany.

Drawing. — Representation: nature study, — flowering plants, shrubs and trees; familiar cylindric, conic and rectangular objects; type forms, — cylinder, cones and rectangular models; studies of life, — pose drawing; composition; selection, grouping and space relations; expression; outline; light and dark; light and shade. Decoration: historic study; characteristics of Greek style; creative effort; area; borders and surface patterns; expression; outline; light and dark;

color. Construction: patterns and developments; hexagonal objects; truncated, conic and pyramidal objects; covers, folios, etc.; working drawings.

The school opens on the second Wednesday of September and closes on the third Wednesday of June.

THOMAS MAGENNIS,
Superintendent.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

ALMORIN O. CASWELL, ACTING DIRECTOR.

The whole number of blind persons registered in the Perkins Institution at the beginning of the school year, Oct. 1, 1906, was 316. This enrolment included 182 in the main school at South Boston, 118 in the kindergarten at Jamaica Plain and 16 in the workshop for adults. These numbers may be subdivided as follows: —

Pupils in the boys' department,	82
Pupils in the girls' department,	89
Children in the kindergarten,	118
Teachers and officers,	9
Domestics,	2
Beneficiaries of Massachusetts: —	
At beginning of year (Oct. 1, 1905),	171
Admitted during year,	36
Discharged during year,	17
At present time,	190

In spite of the heavy blow which has befallen the institution through the death of Michael Anagnos, its eminent director during thirty years of its growth and prosperity, the work of the school has progressed steadily and satisfactorily along the many lines of its activities. The curriculum is broad and comprehensive, and is well calculated to furnish the pupils with such a solid basis of fundamental knowledge that they will be able to build upon it in any special form of higher development which they may choose. A spirit of true harmony prevails among the students and their teachers and caretakers; and, whether in the schoolroom, the gymnasium, the music room or the playground, the boys and girls enter with zest into their occupations and

pastimes, and exhibit a fund of animation and exhilaration which it is pleasant to see. Under these conditions the results of the year's efforts are exceedingly gratifying.

In the literary department the course follows closely that adopted in the public schools, so that the pupils find an additional incentive in keeping abreast of their seeing brothers and sisters, and in being able to discuss with them puzzling points in their studies, characters met in literature, or knotty problems which both have triumphantly solved.

A strong and constant effort is put forth to train and develop the minds and characters of the pupils to a point where they will stand upright in proud independence, as honest, self-respecting citizens, capable of taking their places among normal men and women and of contributing their share to the world's work, and at the same time to awaken them to a conception of what is best and truest in the realm of letters and in the lives of mankind. With such a foundation of true worth there is no doubt of their being able to find an opportunity to perform remunerative labor in some field of activity. Their spirit in the class room has been excellent, and a fair degree of progress has rewarded their earnest endeavors.

Music offers a pleasant relaxation from close application to literary studies, but, farther than this, it serves to cultivate the æsthetic nature of the pupils, and it offers a vocation which is as truly an avocation and presents to those who have some talent in this direction a means of livelihood which is as little hampered as any can be by their loss of sight. Realizing this, the pupils are glad to devote as much time as possible to this study, and their ardor and conscientious work are fully revealed by the results of their labors. All of the music students receive instruction in playing upon the pianoforte and in the study of harmony, theory and musical history; and the different orchestral instruments are thoroughly taught by special and competent teachers. The orchestra has made a decided advance during the past year, both in the character of its work and in its repertory; and it is able to give much pleasure to its hearers, as well as to prove very valuable to its members through *ensemble* playing.

Regular exercises in the gymnasium afford the necessary physical training which must accompany all mental development, establishing a healthy body for the healthy mind. These play an

important function in the daily life of the blind students, who are cut off from the field sports, through which those with sight become hale and vigorous, and who are only too prone to pass their leisure time in quiet conversation rather than in any form of activity. Under wise and constant supervision they engage in daily practice in exercises which are carefully chosen to supply the special needs of each individual, with a view to correcting all physical ills, as far as these are remediable, and to overcoming all personal idiosyncrasies. So successful is this attempt that in the main the pupils are in good health throughout the year, and very little interruption to school work comes through sickness or disease.

Sloyd has been found to yield the best results in the manual training of blind boys and girls, and is pursued systematically in all the departments of the institution, beginning with the children in the kindergarten, where they work with pliable materials in knitting and sewing, continuing in the intermediate grades, where wood is the chosen medium, and carried on in the advanced classes, in which the boys learn to cane chairs and to make mattresses, while the girls reach a high degree of proficiency in sewing, both by hand and by machine, and in making entire garments.

The library is one of the vital forces of the school, and no department or class is independent of the aid which may be derived from its fine collection of books, both in ink print and in embossed type, and of specimens, models and appliances of all kinds, which admirably supplement instruction by means of text-books. In addition to the important part which this collection of literature plays in the life of the school, it serves as a circulating library, and its embossed books are distributed throughout this country and in Canada. The literature which is put into raised type is very carefully selected from that which has received the seal of approval from competent critics, and the number of volumes is constantly increasing through the ministrations of the Howe Memorial Press, which is busily engaged in publishing books or music during the school year.

The teachers of the adult blind are pursuing their beneficent task of travelling to and fro through the State, searching out those who may be benefited by means of instruction in reading,

writing and some forms of handicraft, and aiding them in every way possible to regain some of the independence of action and the pleasure in living which were theirs before the great affliction of blindness came upon them.

While the limit of its capability for growth has been by no means reached, the work is made as extensive as the fund allotted to it will allow, and every cent of the amount is expended for the direct advantage of those for whose sake it is appropriated by the Legislature. The part given freely by the institution, through the services of its officers and the use of offices, sales-room and library, is no small proportion of the entire expense.

The deaf-blind pupils now number four, three of whom are members of the older school at South Boston, while one of them, Louis Yott, a bright little newcomer, is at the kindergarten in Jamaica Plain. Each has a special teacher, under whose tuition and supervision the regular course of class-room work is pursued, and fair progress is being made. Three of these children, Cora Adelia Crocker, Nellie Winitzky and Louis Yott, belong to Massachusetts, and receive the benefits of the special legislative appropriation for such cases; but Thomas Stringer, the fine, earnest lad who has been in the charge of the Perkins Institution through all the years of his intelligence, is still dependent upon the benefactions of those kind friends who are deeply interested in the unfortunate boy, and are glad to contribute toward the expense of his education.

INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND,
SOUTH BOSTON, Jan. 1, 1907.

To the State Board of Education.

The work of instructing the adult blind in their homes is being pursued quietly, unostentatiously but effectively along the pathway which was marked out for it at its inception, six years ago, through the wise foresight and clear judgment of the members of your board and the late Michael Anagnos, the revered and beloved director of the Perkins Institution for the past thirty years.

Since its beginnings in 1900 it has expanded in every way. Its aid has been freely sought and as freely given throughout the State, and it has carried solace and encouragement to hundreds of sightless persons who could be helped in no other way.

Primarily the instruction is intended to bring into the joy of the companionship of books those who have been cut off from this great source of happiness by their infirmity, to reunite them with friends through correspondence, and to provide some means of pleasant occupation for the hours which must often be spent in loneliness. Only secondarily does financial gain enter into consideration, although the amount of $441.58 which has been received by these pupils during the past year, for articles made under instruction, shows a fair return for the expenditure. The sum of $322.52, which was earned by three pupils, acting as selling agents, may also be mentioned as indicative of the incentive and self-reliance inculcated by this work.

Self-support is indeed eagerly sought by many of these hapless victims of disease or disaster; but many circumstances combine to make it difficult, if not practically impossible, to satisfy this craving to any great extent. It is a fact that a majority of the pupils are prevented by some mental or physical trouble from accomplishing remunerative work or producing saleable articles. For such the solace of mental or manual employment, as an end rather than as a means to an end, and the cheer of human companionship, must be accounted the purpose of this beneficent service to the adult blind. To others, more highly endowed or less affected by the ravages of age or disease, the instruction brings a message of hope, and an incentive to put forth sturdier efforts, so that four senses may as far as possible do the work of five, and the earnest man or woman may regain a place among self-respecting, independent members of the community, contributing in some degree to its welfare.

As time goes on, and experience takes the place of experiment, a prime excellence is more and more discoverable in that fundamental decree of the plan, — that the adult blind shall remain and be ministered unto in their own homes and among their own people. There, if anywhere, can an intelligent interest unite them to their fellowmen, and there will the duties and pleasures of life find their fullest meaning. Segregated in any home for

the blind and separated from the interests of the world at large, they would be robbed of participation in its every-day affairs and in the blessings of human brotherhood, while their deprivations through infirmity would be kept constantly in mind.

The four teachers visit their pupils regularly, as often as the demands upon their time will permit. They plan their program two weeks in advance, with due reference to the exigencies of train service, notifying their pupils beforehand, so that these shall be at home and fully prepared for the lesson. The instructors exercise the strictest economy of time and money, and utilize both in a conscientious desire to carry out the wishes of the State and to further the interests of the adult blind in the highest possible degree. In this earnest endeavor they are seconded, first, by the liberality of the officials of the Boston & Maine and the New York, New Haven & Hartford railroads, who are so good as to grant half rates to the teachers and their guides, thus materially reducing their travelling expenses, and performing a distinct service to the cause of the adult blind; and, second, by the generosity of the authorities of the Perkins Institution, who practically double the resources of the work by a free gift of appliances and materials, the use of offices, salesroom and library and the services of officers and librarians. With multitudinous incidental expenses saved by these means, the institution forms a strong coadjutor to the actual teaching force, and renders the State appropriation, inadequate at best, far more effective in its operations than it could otherwise possibly be.

The work is now firmly established, and its future prosperity at its present rate of progress is assured. Its further growth and expansion depend wholly upon the amount of the appropriation which is placed by the State Legislature at the disposal of those responsible for the success of the undertaking, and which alone limits the enterprise at this point of its development.

The names and addresses of the teachers are as follows: Miss Lillian R. Garside, No. 57 Pearl Street, South Framingham; Miss Lydia Y. Hayes, No. 52 Dartmouth Street, Winter Hill; Mr. Edward Schuerer, No. 15 Warriner Avenue, Springfield; Mr. John Vars, No. 72 Huntington Avenue, Boston, Mass.

Statistics. — Number of blind persons visited, 80; number

taught, 58; number refusing instruction, 22. Number receiving instruction: in the several systems of reading, 106; writing, 35; sewing, 19; knitting, 27; crocheting, 8; use of the sewing machine, 6; musical Braille, 5; tuning pianofortes, 1; playing upon the violin, 1; reseating chairs with cane, pith, splint or rush, 53; basketry, 6; hammock-making and netting, 3; reed-work, 1. Amount of money earned by the pupils, $441.58. Summary of work done by the teachers: calls made, 703; lessons given, 1,774; miles travelled, 45,617.

All which is respectfully submitted by

Francis Henry Appleton,
Walter Cabot Baylies,
William L. Benedict,
William Endicott,
Paul Revere Frothingham,
Charles P. Gardiner,
N. P. Hallowell,
Annette P. Rogers,
George H. Richards,
William L. Richardson,
Richard M. Saltonstall,
S. Lathrop Thorndike,

Trustees.

THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

Extracts from the Superintendent's Report.

I hereby submit the following annual report for the fourteen months ending Nov. 30, 1906: —

	Males.	Females.	Totals.
Number present Sept. 30, 1905,	617	411	1,028
Admitted during the year,	124	98	222
Whole number present,	741	509	1,250
Discharged during the year,	52	24	76

	Males.	Females.	Totals.
Died during the year,	12	15	27
Number present Nov. 30, 1906,	677	470	1,147
Average number present,	–	–	1,057
School cases admitted,	75	54	129
Custodial cases admitted,	49	44	93
Private cases now present,	–	–	54
Massachusetts school beneficiaries,	–	–	417
Custodial cases supported by the State,	–	–	212
Custodial cases supported by cities and towns,	–	–	409
Beneficiaries of other New England States,	–	–	42
Number at Templeton colony,	–	–	180
Applications for admission during year,	–	–	397

Of the 222 admissions, 107 were young, teachable pupils; included in this number are pupils capable of very great improvement. It has been many years since we have received so large a proportion of improvable cases. Thirty-nine of the admissions were females over fourteen years of age, and 35 males over fourteen years of age; 23 of these adults were of a very improvable type. Thirty-three of the admissions were of the class requiring much nursing and care, and not particularly susceptible to educational influences.

Of the above admissions, 18 were cases of spastic paralysis, 2 were insane and 8 were insane imbeciles; 4 were hydrocephalic, 2 were microcephalic, 8 were of the Mongolian type of idiocy; 4 were totally blind, 2 were deaf and 4 were epileptic. Four pupils were admitted from the State Industrial School for Girls at Lancaster and 6 from the Lyman School for Boys.

The large number of admissions for the past two or three years has greatly diminished the urgency of the applications now on file. We have admitted the most troublesome cases, and those requiring the most care and causing the most anxiety

in the community. The new applications for the year show a slight falling off, as compared with those for last year.

Of the 76 discharges, 47 were taken away by their parents for various reasons; 3 were kept at home to attend public school; 6 New England beneficiaries were withdrawn to make room for younger pupils; 12 went to work for wages; 5 ran away and were not returned; 3 were removed by overseers of the poor. Of those who were discharged to work for wages, 3 are working as farm hands; 3 are working in a factory; and 1 each is working in a machine-shop, paper-mill and foundry respectively; 1 each as bootblack, messenger boy and as steward on a steamboat.

Of the total number of discharges, 28 are so improved as to be capable of practical self-support, if their work could be supervised and directed, either at home or under protected employment. Every one of these pupils showed a decided mental and physical improvement; 36 other cases were returned to their friends in a decidedly improved condition; 12 of the cases discharged were not improved either physically or mentally.

The general health of our large family has been excellent. It has frequently happened that for days at a time we have had no cases of acute illness. The congregation of a large number of children near a great city, with frequent visiting of friends who may carry infection, makes it almost certain that each year we shall be called upon to deal with cases of infectious or contagious disease. Early in the autumn we had 21 cases of scarlet fever, with 1 death. There were 112 cases of measles of a severe type, with 2 deaths. Five cases of typhoid fever developed in one house within three days of each other, with 1 death; no other cases preceded or followed this group.

We have accumulated a large number of cases who have always been delicate and feeble, needing continuous hospital care and nursing. We have many inmates well along towards middle age, with an increasing liability to illness. We now have two small detached hospital blocks, each with room for 12 patients. We now need another hospital block to provide for 25 patients.

There were 27 deaths during the year, — less than 3 per cent. of the average number present. Of these deaths, 8 resulted

from pulmonary tuberculosis; 6 of these cases were suffering from tuberculosis when admitted. All were of feeble type, both mentally and physically; 2 were bedridden from the date of admission. Four deaths resulted from organic brain disease; 4 from acute lobar pneumonia; 2 from exhaustion of chronic idiocy; 2 from measles; and 1 each from cerebral hemorrhage, cerebral meningitis, acute enterocolitis, epilepsy, organic heart disease, scarlet fever and typhoid fever.

The following table shows the age of the 1,147 inmates in the institution at the close of the fourteen months ending Nov. 30, 1906: —

	Males.	Females.	Totals.
Under 5,	4	1	5
From 5 to 10,	92	46	138
From 10 to 15,	193	115	308
From 15 to 20,	174	124	298
From 20 to 25,	109	69	178
From 25 to 30,	62	50	112
From 30 to 35,	22	27	49
From 35 to 40,	11	20	31
From 40 to 45,	4	6	10
From 45 to 50,	4	7	11
Over 50,	2	5	7
	677	470	1,147

In these reports in former years we have described and discussed in detail the methods of instruction and training employed in this and other institutions for the feeble-minded. There have been no radical changes in the general plan of instruction. We have now more pupils under training than ever before. The admission of so many young, improvable children has taxed fully the capacity of our classes and class rooms.

The pupils in our regular classes continue to show as much improvement as in years past. We have greatly enlarged and extended the scope of our classes for manual instruction. In the sloyd classes, under Miss Johnson, the more advanced boys learn to use wood-working tools with a good deal of precision. The models made by these pupils compare favorably with the work of normal boys in the public schools.

In the four class rooms in the manual training building, Mr. Ray, with four assistants, conducts the classes in painting, shoe repairing, furniture repairing, printing, cane seating of chairs, brush making, etc. The articles made or repaired by the boys are used in every department of the school. These boys show the greatest pride in exhibiting the results of their handiwork. The direct educational value of the work done here is very apparent. Mr. Ray also directs the elementary classes in manual training, where boys are taught the use of common tools, how to drive nails, how to use a screwdriver or gimlet, to use a saw carefully and accurately, to use a pocket knife with a definite purpose, etc.

For the girls, the domestic training classes of Miss Ross, in the well-equipped class room, have more than realized our expectations. These pupils have acquired a hitherto unknown degree of efficiency in plain cooking, waiting on table, laundry work and housekeeping generally.

Every girl of suitable age and capacity receives regular instruction in plain sewing, darning, mending, the use of sewing machine, etc. For the girls we have also added a special department of instruction in knitting, weaving of rugs, braiding of rugs, and other handiwork of this kind. The pupils in this department for manual work are under the instruction of Miss Van Campen, who has been especially trained and has had successful experience in this work. In these manual classes we expect to do for the girls what we have long done for the boys with sloyd and manual training.

The rapid increase in the number of young pupils has already caused our new manual training building to be entirely inadequate for our needs. This building should be enlarged to at least three times its present size, in order to accommodate classes now formed.

The fondness of feeble-minded children for music and the ability which they show in simple musical performance has long been proverbial. Each schoolroom or sitting room has a piano or organ, and vocal or instrumental music is the chief factor in the many entertainments. Singing is the one great relaxation and recreation of the children. Musical instruction has long been recognized as a valuable educational factor in

this work. Hitherto this work has been done in the regular school classes, but Miss Boynton, the music teacher, now devotes her entire time to the instruction of classes of boys and girls in vocal and instrumental music.

It is a pleasure to record briefly the story of another happy and prosperous year at the farm colony at Templeton. The "Brook House," the fourth group of farm buildings, was opened early in January, with the transfer of a group of boys from the school at Waltham. These boys at once became contented and happy, and not one of them is willing to return to the school. They have taken the greatest interest in the grading about the buildings, the clearing up of the old farm land and the cultivation of the crops. Already, as in previous transfers, every boy shows marked mental, physical and social improvement, as a result of the almost ideal conditions and environment.

The material prosperity of the colony — the visible, substantial result of the boys' happy industry — is a powerful if not indispensable factor in producing the content and tranquility and self-respect which has so uniformly been shown by properly selected boys transferred to the colony. They are proud of their work.

Respectfully submitted,

WALTER E. FERNALD, M.D.,
Superintendent.

AUTHORITY OF SCHOOL COMMITTEES TO DISCONTINUE SCHOOLS.

[Full Text of Decision of the Supreme Judicial Court.]

Acushnet School Case.

Following is the full text of the Supreme Judicial Court's decision in the case of Morse *v.* Ashley, in which the former petitioned the court for a mandamus to compel the respondents, members of the school committee of Acushnet, to reopen a school: —

This is a petition for a writ of mandamus to compel the respondents, as they are the school committee of the town of Acushnet, to reopen the Bisbee school in that town. On Oct. 7, 1905, the town voted to reopen the school, but the respondents refuse to comply with the vote. The question is, whether the vote is binding upon the respondents.

It appears that at some time prior to the vote there had been maintained in the town an ungraded school, called the Bisbee school, which two children of the petitioner, each under ten years of age, attended; that the committee had caused the school to be closed, "and thereafter the said children of petitioner were required, by order of said committee, to attend the graded school, located three quarters of a mile distant from the 'Bisbee school,' and called the 'Long Plain School,' and for a few days they attended the latter school, the committee then and now furnishing transportation to and from the school." It further appeared that the number of pupils in the Bisbee school was small, their ages varying from four years to fourteen years, and that it was located about half a mile from the petitioner's residence.

It also appeared that there are no school districts in the town, the attendance of the pupils at the several schools being regulated by the respondents; that at the time of the vote the town maintained, in addition to the Bisbee schoolhouse, "a sufficient number of schoolhouses, properly furnished, . . . in which houses schools were and are now maintained, to accommodate the total number of children who might legally attend the public schools therein, except that no high school is maintained;" and that "such schools are under the direction of a superintendent employed by said town in conjunction with two other adjoining towns."

The respondents in their answer aver that in their judgment the interests of the pupils who attended the Bisbee school required that "they should be furnished the greater and systematic facilities for education which the . . . [Long Plain school] . . . offered in preference to reopening the . . . Bisbee school, and required the attendance of the pupils" at the graded school; and that the number of pupils formerly attending the Bisbee school is so small "as in the judgment of the . . . [respondents] . . . to render its maintenance inadvisable and unnecessary." In the absence of any evidence to the contrary it is to be assumed that the respondents are acting in good faith, and that their judgment is correct.

The vote of the town was, that "the town reopen the 'Bisbee school.'" It is well to see what under the circumstances was the meaning of this vote. It was not a vote to establish a high school or an evening and industrial school, nor simply to open the schoolhouse where the Bisbee school had been maintained. On the contrary, it was an order that the pupils who formerly attended that school, or who under the previous custom naturally would have been assigned to it if it had not been closed, should be taken from the schools to which they had been respectively assigned by the respondents and sent to the old school, and there kept during the ordinary school hours. That is what the vote meant. If this order is valid, then the town may make a similar order as to every schoolhouse and every pupil, and transfer the pupils from school to school at its own will.

Revised Laws, chapter 42, section 27, provides that the school committee "shall have the general charge and superintendence of all the public schools." In the performance of this duty the committee act not as the agents of the town, but as public officers intrusted with certain powers and charged with corresponding duties. In the absence of the school district system, the duty of assigning the pupils to the various schools is a part of the superintendence under this provision of the statute. This duty rests upon the committee; and of course upon them rests also the responsibility for the proper discharge of it. While they may and should take into careful consideration any wish of the inhabitants of the town, whether expressed in a formal vote or otherwise, still, in the end their own decision when reached is the decision of the Commonwealth, and is to control. To hold otherwise would be to put the superintendence of the school into the hands of two separate bodies, one the town and the other the school committee, each being likely to neutralize the good effect of the work of the other, and thus to create confusion and inefficiency in the school system. It is manifest that by the vote under consideration the town undertook to direct the committee in a matter over which the committee under the statute had full control. It follows that the vote is inoperative, and is in no way binding upon the committee.

Petition denied.

ADMISSION TO STATE NORMAL SCHOOLS.

STATE BOARD OF EDUCATION, STATE HOUSE, BOSTON, May 6, 1907.

To Principals of High Schools.

Your attention is invited to the following votes of the State Board of Education, passed on May 2, 1907: —

Candidates from high schools which are on the certificate list of the New England College Entrance Certificate Board may be admitted to any of the State normal schools without examination in any subject required for admission in which they have attained a standing of B., or 80 per cent., as certified by the principal of the school.

Blank forms for the certificate may be obtained upon application to this office.

Beginning with 1908, candidates from high schools not in the college certificate list may be admitted on similar conditions, if the high schools are approved for the purpose by the Board of Education.

High schools desiring this approval should correspond with the secretary of the Board.

French may be taken in the preliminary examinations.

Very truly yours,

GEORGE H. MARTIN,
Secretary.

AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES OF THE SEVERAL TOWNS AND CITIES IN THE COMMONWEALTH

FOR

THE SCHOOL YEAR, 1905–1906.

BARNSTABLE COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Barnstable,	4,336	$4,954,820	21	629	459	741	-	136	513	682	626	.92
Bourne,	1,786	2,673,075	11	247	192	336	-	61	212	307	279	.92
Brewster,	739	553,080	4	116	84	101	-	24	65	92	85	.92
Chatham,	1,634	970,425	11	233	161	299	11	55	161	258	230	.89
Dennis,	1,998	1,154,490	13	293	228	389	-	59	244	355	332	.94
Eastham,	519	350,295	2	78	55	82	1	-	58	73	65	.89
Falmouth,	3,241	7,872,776	18	526	465	593	25	42	333	525	473	.90
Harwich,	2,291	1,160,162	13	396	290	447	1	43	279	394	352	.89
Mashpee,	317	189,060	3	54	41	56	-	4	46	51	45	.88
Orleans,	1,052	589,805	4	170	141	195	-	30	141	191	174	.91
Provincetown,	4,362	1,928,920	21	888	633	938	1	71	616	816	757	.93
Sandwich,	1,433	981,575	8	222	152	244	-	39	143	242	222	.92
Truro,	743	366,990	5	149	111	160	1	12	112	137	124	.91
Wellfleet,	958	1,086,628	5	123	83	156	-	24	98	129	119	.92
Yarmouth,	1,422	1,842,030	9	183	142	216	2	35	139	195	181	.93
Totals,	26,831	$26,674,131	148	4,307	3,237	4,953	42	635	3,160	4,447	4,064	.91

BERKSHIRE COUNTY.

Adams,	12,486	$5,784,235	43	2,460	1,922	1,939	14	63	1,361	1,671	1,580	.95
Alford,	275	157,770	2	49	34	41	-	1	32	31	28	.89
Becket,	890	455,313	8	159	154	162	3	4	119	122	106	.87

Cheshire,	1,281	695,704	7	226	172	213	–	5	160	174	157	.90
Clarksburg,	1,200	255,569	6	265	216	288	4	3	185	196	172	.88
Dalton,	3,122	3,017,700	17	549	412	636	–	52	435	574	537	.93
Egremont,	721	449,612	4	98	82	119	–	3	88	84	76	.91
Florida,	424	151,179	5	79	53	97	1	1	77	70	65	.93
Great Barrington,	6,152	5,123,650	28	933	700	1,137	–	147	692	1,024	930	.91
Hancock,	434	283,257	6	75	58	85	1	4	56	63	52	.84
Hinsdale,	1,452	591,257	10	255	200	300	5	17	207	258	232	.90
Lanesborough,	845	475,569	5	134	110	138	1	12	105	115	110	.78
Lee,	3,972	1,918,865	14	717	495	540	8	85	419	576	525	.91
Lenox,	3,058	4,955,485	20	562	417	652	6	81	562	625	568	.91
Monterey,	444	271,085	5	90	65	96	2	4	67	63	53	.85
Mount Washington,	87	88,101	2	18	14	21	–	2	15	20	18	.91
New Ashford,	100	53,390	1	8	7	8	–	–	7	8	7	.88
New Marlborough,	1,209	574,905	10	185	144	234	2	8	169	179	154	.86
North Adams,	22,150	14,862,527	80	4,366	2,989	3,645	204	307	2,105	3,135	2,882	.92
Otis,	534	220,979	7	79	63	81	–	2	68	68	60	.88
Peru,	268	121,548	5	68	57	761	–	–	51	50	45	.90
Pittsfield,	25,001	18,330,223	109	4,415	3,083	4,403	104	390	2,758	3,920	3,635	.93
Richmond,	601	336,752	6	89	60	108	1	9	79	86	78	.91
Sandisfield,	657	306,690	7	101	68	121	4	9	86	86	73	.85
Savoy,	549	172,740	7	84	51	104	–	2	73	83	74	.89
Sheffield,	1,782	938,740	13	241	193	286	8	23	201	231	195	.85
Stockbridge,	2,022	3,536,160	11	384	267	402	2	46	251	353	310	.88
Tyringham,	314	241,373	3	41	25	31	–	1	22	23	20	.88
Washington,	339	310,622	6	72	55	88	–	1	69	68	59	.87
West Stockbridge,	1,023	381,002	7	182	133	163	2	5	121	139	123	.89
Williamstown,	4,425	3,035,747	22	822	593	799	1	93	539	718	675	.94
Windsor,	513	243,970	7	93	75	104	5	1	83	86	72	.84
Totals,	98,330	$68,341,719	483	17,899	12,967	17,102	378	1,381	11,262	14,899	13,671	.92

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Avge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Barnstable,	7	22	6	–	20	$75 00	$43 75	186	8-17	2	6	138	9-18 9-18	$6,235 42
Bourne,	2	9	2	–	5	90 86	42 57	94-10	8-12	1	2	63	9-5	2,200 00
Brewster,	1	3	1	–	3	75 00	41 66	34-10	8-15	1	1	21	9	1,152 00
Chatham,	1	11	2	2	4	88 88	32 72	99	9	1	2	46	9	1,596 00
Dennis,	4	9	2	2	7	62 50	43 88	117	9	2	2	59	9 9	1,715 10
Eastham,	–	2	–	–	2	–	40 00	16-18	8-9	–	–	–	–	–
Falmouth,	4	17	4	–	9	84 00	49 53	158	8-15	1	4	64	10	6,333 70
Harwich,	1	13	1	1	7	90 00	39 61	108-10	8-7	1	1	56	9-16	1,306 69
Mashpee,	1	2	–	1	4	45 00	38 00	24-10	8-3	–	–	–	–	–
Orleans,	1	5	2	–	3	90 00	42 00	36-4	9-1	1	2	37	9-16	1,680 64
Provincetown,	1	22	2	–	9	120 00	42 00	200	9-10	1	3	67	10	2,900 00
Sandwich,	1	9	1	–	7	70 58	41 64	67-10	8-9	1	3	33	9-5	2,042 00
Truro,	–	5	–	–	1	–	46 13	45	9	–	–	–	–	–
Wellfleet,	1	5	2	–	1	82 00	38 40	48	9-12	1	2	33	10	1,395 00
Yarmouth,	2	11	1	–	6	85 55	45 00	79-13	8-17	1	1	30	9	1,433 70
Totals,	27	145	26	6	88	$78 71	$42 51	1,315-5	8-17	14	29	647	9-9	$29,990 25

BERKSHIRE COUNTY — CONTINUED.

Adams,	4	47	4	1	28	$135 90	$47 62	406-8	9-9	1	7	159	9-15	$6,866 72
Alford,	–	2	–	–	2	–	38 15	19-8	9-14	–	–	–	–	–
Becket,	–	8	–	1	4	–	33 00	70-10	8-17	–	–	–	–	–

Cheshire,	–	7	–	–	2	–	40 57	60-5	9-1	–	–	–	–	–
Clarksburg,	–	6	–	–	6	–	41 33	54	9	–	–	–	–	–
Dalton,	1	18	4	–	10	120 00	46 66	159-12	9-8	1	4	106	9-16	5,190 39
Egremont,	–	4	–	3	1	–	40 00	38	9-10	–	–	–	–	–
Florida,	1	5	–	–	1	40 00	40 00	41	8-4	–	–	–	–	–
Great Barrington,	3	34	6	1	13	109 26	44 63	258-11	9-5	1	6	173	9-10	7,218 14
Hancock,	–	6	–	–	2	–	30 67	49-3	8-3	–	–	–	–	–
Hinsdale,	1	10	1	–	3	66 75	37 91	93-5	9-6	1	1	23	10	226 20
Lanesborough,	–	5	–	–	5	–	43 00	45	9	–	–	–	–	–
Lee,	1	17	3	1	5	136 84	37 12	124	9-10	1	3	88	9-12	3,225 00
Lenox,	1	22	3	1	17	120 00	51 50	190-19	9-10	1	3	64	9-15	3,221 99
Monterey,	–	5	–	–	–	–	27 20	40	8	–	–	–	–	–
Mount Washington,	1	1	–	–	2	40 00	40 00	19-8	9-14	–	–	–	–	–
New Ashford,	–	2	–	–	1	–	40 00	9-15	9-15	–	–	–	–	–
New Marlborough,	–	10	–	–	4	–	29 20	91-10	9-3	–	–	–	–	–
North Adams,	7	109	9	1	38	126 12	54 08	760-5	9-10	1	10	283	9-15	13,313 30
Otis,	–	7	–	–	1	–	28 00	56	8	–	–	–	–	–
Peru,	–	5	–	–	3	–	28 00	41-5	8-5	–	–	–	–	–
Pittsfield,	10	127	8	1	32	108 00	49 53	1,068	9-16	1	11	322	9-16	15,287 73
Richmond,	–	6	–	–	3	–	35 33	56-10	9-8	–	–	–	–	–
Sandisfield,	–	7	–	–	3	–	29 49	52-19	8	–	–	–	–	–
Savoy,	–	9	–	–	–	–	34 28	56	8	–	–	–	–	–
Sheffield,	1	13	2	–	3	65 00	32 69	119-10	9-4	1	2	28	9-8	1,283 27
Stockbridge,	3	12	3	2	6	90 00	48 18	101-4	9-4	1	3	45	9-4	3,631 56
Tyringham,	–	2	–	–	1	–	36 00	24	9	–	–	–	–	–
Washington,	–	6	–	–	2	–	32 66	50-7	8-8	–	–	–	–	–
West Stockbridge,	2	5	–	1	2	35 08	38 00	66-4	9-9	–	–	–	–	–
Williamstown,	5	27	4	–	8	95 00	42 40	195-10	8-18	1	4	110	9-1	4,131 43
Windsor,	–	7	–	–	4	–	33 17	56	8	–	–	–	–	–
Totals,	41	551	47	13	212	$103 37	$46 29	4,474-8	9-5	11	54	1,401	9-12	$63,595 73

BARNSTABLE COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Barnstable,	$16,315 86	$2,787 44	$2,832 01	$42 00	$1,500 00	$1,132 63	$622 34	$25,232 28	$3,433 14	$21,799 14
Bourne,	5,671 42	1,135 00	1,324 25	74 90	675 00	921 55	446 92	10,249 04	1,352 33	8,896 71
Brewster,	1,653 69	983 47	236 38	80 00	251 63	136 91	42 00	3,384 08	894 29	2,489 79
Chatham,	4,040 00	25 00	982 23	240 00	611 16	365 32	513 55	6,777 26	1,787 77	4,989 49
Dennis,	5,650 75	-	893 76	135 00	812 50	780 87	172 50	8,445 38	1,719 48	6,725 90
Eastham,	1,024 00	1,105 84	178 25	-	104 07	102 47	28 00	2,542 63	1,586 66	955 97
Falmouth,	11,115 00	2,695 43	2,757 94	247 70	1,400 00	1,182 81	108 95	19,507 83	556 50	18,951 33
Harwich,	5,166 00	368 50	1,059 93	167 00	676 53	485 78	74 32	7,998 06	1,910 25	6,087 81
Mashpee,	990 50	20 00	202 43	30 00	150 00	114 16	42 97	1,550 06	1,063 20	486 86
Orleans,	2,975 00	1,226 55	576 42	20 00	208 14	288 29	66 68	5,361 08	2,301 86	3,059 22
Provincetown,	10,563 81	-	1,732 76	104 50	1,038 72	1,092 85	1,539 56	16,072 20	1,799 68	14,272 52
Sandwich,	3,987 06	400 35	707 67	-	675 00	551 38	147 66	6,469 12	2,166 39	4,302 73
Truro,	2,399 00	9 75	330 34	90 00	245 94	306 01	27 10	3,408 14	1,690 84	1,717 30
Wellfleet,	2,750 00	473 55	309 85	97 75	247 29	247 51	71 45	4,197 40	1,094 46	3,102 94
Yarmouth,	6,094 32	894 25	739 76	165 00	609 31	400 82	377 10	9,280 56	3,017 77	6,262 79
Totals,	$80,396 41	$12,125 13	$14,863 98	$1,493 85	$9,205 29	$8,109 36	$4,281 10	$130,475 12	$26,374 62	$104,100 50

BERKSHIRE COUNTY — Continued.

Adams,	$27,528 27	$208 70	$6,098 16	$375 00	$2,400 00	$2,001 98	$1,369 96	$39,982 07	-	$39,982 07
Alford,	1,060 00	156 00	34 50	-	204 55	69 54	-	1,524 59	$1,197 93	326 66
Becket,	3,139 50	257 00	149 40	45 00	366 52	303 92	33 84	4,295 18	1,874 22	2,420 96

Cheshire,	2,936 00	733 50	727 19	50 00	450 00	294 15	246 51	5,437 35	2,019 50	3,417 85
Clarksburg,	2,790 45	-	366 38	50 00	500 00	324 19	54 81	4,085 83	2,117 27	1,968 56
Dalton,	10,195 80	228 00	2,690 82	225 00	1,050 00	1,098 33	672 38	16,160 33	979 40	15,180 93
Egremont,	2,113 00	-	234 21	-	269 60	255 87	164 29	3,036 97	1,936 97	1,100 00
Florida,	1,714 80	24 50	105 80	91 02	232 38	111 17	5 88	2,285 55	1,267 94	1,017 61
Great Barrington,	16,606 95	1,050 40	4,301 97	-	1,700 00	2,229 25	868 97	26,757 54	2,107 50	24,650 04
Hancock,	1,590 00	-	124 42	36 00	500 00	76 04	21 54	2,348 00	1,413 92	934 08
Hinsdale,	3,909 57	265 00	513 95	-	689 62	434 27	29 77	5,842 18	1,867 76	3,974 42
Lanesborough,	1,982 60	328 50	420 52	80 00	416 64	129 90	132 18	3,490 34	1,885 86	1,604 48
Lee,	8,960 70	683 05	2,044 46	326 50	720 00	753 79	518 52	14,007 02	1,814 73	12,192 29
Lenox,	10,836 41	542 75	2,547 81	-	1,350 00	1,537 71	1,101 01	17,915 69	200 00	17,715 69
Monterey,	1,305 50	337 90	76 50	50 25	300 00	124 66	21 60	2,216 41	1,339 70	876 71
Mt. Washington,	998 00	-	37 40	27 50	150 00	128 82	7 00	1,348 72	694 00	654 72
New Ashford,	405 75	-	42 75	43 50	84 55	29 06	5 00	610 61	552 86	57 75
New Marlborough,	2,942 30	422 00	215 60	105 25	570 00	216 81	71 53	4,543 49	1,368 85	3,174 64
North Adams,	65,308 38	760 00	13,049 65	1,900 00	2,750 00	3,734 14	5,000 00	92,502 17	-	92,502 17
Otis,	1,568 00	88 00	121 80	27 00	300 00	119 06	41 70	2,265 56	1,173 75	1,091 81
Peru,	1,095 50	151 00	67 00	30 00	258 64	283 33	73 28	1,958 75	1,434 75	524 00
Pittsfield,	70,796 48	210 00	14,774 47	1,363 90	2,300 00	6,400 75	4,818 61	100,664 21	-	100,664 21
Richmond,	2,205 80	194 89	247 61	34 40	429 56	159 74	9 00	3,281 00	1,340 57	1,940 43
Sandisfield,	1,791 00	102 50	88 00	46 75	300 00	134 84	31 22	2,494 31	1,524 63	969 68
Savoy,	2,028 00	210 00	72 08	55 00	316 82	145 91	25 46	2,853 27	1,683 76	1,169 51
Sheffield,	4,638 00	247 75	516 41	33 25	780 00	454 13	83 49	6,753 03	1,850 54	4,902 49
Stockbridge,	8,124 50	1,287 83	1,462 62	237 00	500 00	834 85	188 07	12,634 87	305 37	12,329 50
Tyringham,	1,034 00	137 50	82 00	30 00	180 00	29 95	16 11	1,509 56	1,218 19	291 37
Washington,	1,424 00	98 00	94 87	34 00	202 96	49 16	94 30	1,997 29	1,350 98	646 31
West Stockbridge,	3,213 50	301 68	326 96	35 00	545 45	171 26	132 61	4,726 46	2,042 73	2,683 73
Williamstown,	12,948 18	117 00	3,267 91	174 50	1,200 00	947 47	478 22	19,133 28	784 49	18,348 79
Windsor,	1,856 00	118 50	107 37	6 00	316 82	274 22	62 43	2,741 34	1,637 92	1,103 42
Totals,	$279,046 94	$9,261 95	$55,010 59	$5,511 82	$22,334 11	$23,858 27	$16,379 29	$411,402 97	$40,986 09	$370,416 88

BARNSTABLE COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Barnstable,	$17,889 37	$1,404 39	-	$19,293 76	-	$19,293 76	$41,092 90	$10,233 00	$394 32	$458 45
Bourne,	16,069 24	1,311 66	$673 99	18,054 89	-	18,054 89	26,951 60	-	-	-
Brewster,	-	355 68	-	355 68	-	355 68	2,845 47	-	-	131 60
Chatham,	-	-	100 00	100 00	-	100 00	5,089 49	-	-	112 32
Dennis,	-	-	640 56	640 56	-	640 56	7,366 46	-	-	127 00
Eastham,	-	-	90 91	90 91	-	90 91	1,046 88	-	-	-
Falmouth,	13,518 25	1,503 56	500 00	15,521 81	-	15,521 81	34,473 14	10,000 00	473 00	-
Harwich,	-	5 00	434 87	439 87	-	439 87	6,527 68	1,000 00	35 00	190 55
Mashpee,	-	-	-	-	-	-	486 86	-	-	-
Orleans,	-	-	100 40	100 40	-	100 40	3,159 62	-	-	131 50
Provincetown,	-	-	300 00	300 00	-	300 00	14,572 52	-	-	-
Sandwich,	-	-	78 91	78 91	-	78 91	4,381 64	-	-	251 00
Truro,	-	-	147 82	147 82	-	147 82	1,865 12	-	-	58 05
Wellfleet,	-	-	36 04	36 04	-	36 04	3,138 98	-	-	-
Yarmouth,	-	-	205 34	205 34	-	205 34	6,468 13	15,000 00	902 01	1,302 05
Totals,	$47,476 86	$4,580 29	$3,308 84	$55,365 99	-	$55,365 99	$159,466 49	$36,233 00	$1,804 33	$2,762 52

BERKSHIRE COUNTY — Continued.

Adams,	-	$1,459 50	$1,128 63	$2,588 13	-	$2,588 13	$42,570 20	-	-	-
Alford,	-	213 34	-	213 34	-	213 34	540 00	-	-	-
Becket,	-	-	138 51	138 51	-	138 51	2,559 47	-	-	$126 87

Cheshire,	–	2,800 50	171 77	2,972 27	–	2,972 27	6,390 12	–	–	–
Clarksburg,	$1,310 86	206 00	81 86	1,598 72	–	1,598 72	3,567 28	–	–	–
Dalton,	–	–	567 56	567 56	–	567 56	15,748 49	–	–	–
Egremont,	–	–	–	–	–	–	1,100 00	–	–	27 34
Florida,	–	–	45 71	45 71	–	45 71	1,063 32	–	–	59 61
Great Barrington,	4,600 00	212 00	370 90	5,182 90	–	5,182 90	29,832 94	–	–	657 29
Hancock,	–	–	19 66	19 66	–	19 66	953 74	$200 00	$12 00	–
Hinsdale,	–	–	515 73	515 73	–	515 73	4,490 15	–	–	–
Lanesborough,	–	–	67 13	67 13	–	67 13	1,671 61	1,000 00	50 00	–
Lee,	5,000 00	–	249 21	5,249 21	–	5,249 21	17,441 50	365 00	13 50	–
Lenox,	–	–	1,048 39	1,048 39	–	1,048 39	18,764 08	–	–	–
Monterey,	–	–	6 68	6 68	–	6 68	883 39	–	–	115 78
Mt. Washington,	–	9 12	3 00	12 12	–	12 12	666 84	100 00	6 00	23 87
New Ashford,	–	–	1 90	1 90	–	1 90	59 65	–	–	–
New Marlborough,	–	–	177 27	177 27	–	177 27	3,351 91	–	–	237 66
North Adams,	–	800 00	2,760 32	3,560 32	–	3,560 32	96,062 49	–	–	1,126 69
Otis,	–	–	125 05	125 05	–	125 05	1,216 86	–	–	89 40
Peru,	–	21 00	5 00	26 00	–	26 00	550 00	–	–	–
Pittsfield,	–	11,222 31	6,899 52	18,121 83	$10,000 00	8,121 83	108,786 04	–	–	–
Richmond,	–	–	95 76	95 76	–	95 76	2,036 19	–	–	50 56
Sandisfield,	–	160 00	12 52	172 52	–	172 52	1,142 20	1,290 00	77 40	132 96
Savoy,	–	–	41 67	41 67	–	41 67	1,211 18	1,297 00	77 82	102 06
Sheffield,	–	148 88	305 42	454 30	–	454 30	5,356 79	1,000 00	68 80	271 69
Stockbridge,	–	–	397 48	397 48	–	397 48	12,726 98	–	–	–
Tyringham,	–	–	–	–	–	–	291 37	–	–	72 56
Washington,	–	–	–	–	–	–	646 31	–	–	80 05
West Stockbridge,	–	–	105 45	105 45	–	105 45	2,789 18	–	–	–
Williamstown,	–	546 04	1,154 24	1,700 28	–	1,700 28	20,049 07	–	–	–
Windsor,	–	–	–	–	–	–	1,103 42	–	–	111 42
Totals,	$10,910 86	$17,798 69	$16,496 34	$45,205 89	$10,000 00	$35,205 89	$405,622 77	$5,252 00	$305 52	$3,285 81

BARNSTABLE COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in—		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	–	$50 00	–	–	–	–	–	–	–	–
Bourne,	–	–	–	–	–	–	–	–	–	–
Brewster,	$825 84	–	–	–	–	–	–	–	–	–
Chatham,	1,176 40	–	–	–	–	–	–	–	–	–
Dennis,	807 29	–	–	–	–	–	–	–	–	–
Eastham,	1,157 29	–	–	–	–	–	–	–	–	–
Falmouth,	–	–	–	–	–	–	–	–	–	–
Harwich,	807 29	–	–	–	–	–	–	–	–	–
Mashpee,	938 20	–	–	–	–	–	–	–	–	–
Orleans,	1,176 39	–	–	–	–	–	–	–	–	–
Provincetown,	1,026 39	–	–	–	–	–	–	–	–	–
Sandwich,	957 30	–	–	–	–	–	–	–	–	–
Truro,	1,157 30	–	–	–	–	–	–	–	–	–
Wellfleet,	675 83	–	–	–	–	–	–	–	–	–
Yarmouth,	675 83	–	–	–	–	–	–	–	–	–
Totals,	$11,381 35	$50 00	–	–	–	–	–	–	–	–

BERKSHIRE COUNTY — Concluded.

Adams,	–	–	–	–	1	506	–	–	–	–
Alford,	$1,157 29	–	–	–	–	–	–	–	–	–
Becket,	1,100 84	–	–	–	–	–	–	–	–	–

Cheshire,	1,176 39	-	-	-	-	-	-	-	-	-
Clarksburg,	1,100 84	-	-	-	-	-	-	-	-	-
Dalton,	-	-	-	-	-	-	-	-	-	-
Egremont,	1,025 84	-	-	-	-	-	-	-	-	-
Florida,	1,232 29	-	-	-	-	-	-	-	-	-
Great Barrington,	-	-	-	-	1	16	-	-	-	-
Hancock,	1,025 84	-	-	-	-	-	-	-	-	-
Hinsdale,	1,176 39	-	-	-	-	-	-	-	-	-
Lanesborough,	1,376 39	-	-	-	-	-	-	-	-	-
Lee,	807 29	-	-	-	1	187	-	-	-	-
Lenox,	-	-	-	-	-	-	-	-	-	-
Monterey,	1,025 83	-	-	-	-	-	-	-	-	-
Mount Washington,	500 00	$30 00	-	-	-	-	-	-	-	-
New Ashford,	575 00	-	-	-	-	-	-	-	-	-
New Marlborough,	957 30	-	-	-	-	-	-	-	-	-
North Adams,	-	-	-	-	2	1,514	-	$3,000 00	-	-
Otis,	938 20	-	-	-	-	-	-	-	-	-
Peru,	1,157 30	-	-	-	-	-	-	-	-	-
Pittsfield,	-	300 00	-	-	3	630	-	9,500 00	-	-
Richmond,	1,013 19	-	-	-	-	-	-	-	-	-
Sandisfield,	1,100 83	15 00	-	-	-	-	-	-	-	-
Savoy,	1,451 39	-	-	-	-	-	-	-	-	-
Sheffield,	957 30	15 00	-	-	-	-	-	-	-	-
Stockbridge,	-	-	-	-	-	-	-	-	-	-
Tyringham,	938 19	-	-	-	-	-	-	-	-	-
Washington,	1,013 19	-	-	-	-	-	-	-	-	-
West Stockbridge,	1,100 83	-	-	-	-	-	-	-	-	-
Williamstown,	-	-	-	-	1	90	-	300 00	-	-
Windsor,	1,232 30	-	-	-	-	-	-	-	-	-
Totals,	$25,140 25	$360 00	-	-	9	2,943	-	$12,800 00	-	-

BRISTOL COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Acushnet,	1,284	$681,250	7	232	166	229	1	2	150	190	177	.93
Attleborough,	12,702	10,780,830	49	2,330	1,629	2,408	72	177	1,704	2,070	1,922	.93
Berkley,	931	416,255	7	150	111	164	–	5	133	141	126	.90
Dartmouth,	3,793	3,241,525	23	689	553	664	6	37	506	584	530	.91
Dighton,	2,070	897,916	12	345	247	339	5	3	250	296	274	.93
Easton,	4,909	4,858,349	28	937	649	1,065	51	100	914	990	913	.92
Fairhaven,	4,235	2,877,780	19	773	558	860	2	71	572	740	693	.94
Fall River,	105,762	81,754,247	291	20,493	14,965	15,926	171	990	11,855	13,479	12,485	.93
Freetown,	1,470	822,005	8	259	196	294	2	6	223	242	217	.90
Mansfield,	4,245	2,587,293	23	817	582	878	1	90	580	797	719	.90
New Bedford,	74,362	64,349,661	202	12,887	9,288	10,062	203	468	6,962	8,879	8,216	.93
North Attleborough,	7,878	4,366,691	32	1,252	904	1,400	2	151	915	1,270	1,172	.92
Norton,	2,079	995,875	10	271	193	363	–	22	239	273	246	.90
Raynham,	1,662	744,379	8	257	183	219	–	4	159	204	182	.89
Rehoboth,	1,991	780,452	15	334	262	348	8	6	265	288	249	.86
Seekonk,	1,917	1,071,400	9	255	211	298	4	5	217	232	198	.85
Somerset,	2,294	1,146,800	11	458	337	463	10	8	337	416	377	.91
Swansea,	1,839	1,146,208	12	303	213	303	2	3	298	258	220	.85
Taunton,	30,967	21,744,671	140	5,445	3,952	5,348	–	470	3,364	4,617	4,311	.93
Westport,	2,867	1,645,725	19	506	360	503	4	20	387	417	371	.89
Totals,	269,257	$206,909,312	925	48,993	35,559	42,134	544	2,638	30,030	36,383	33,598	.92

DUKES COUNTY.

Chilmark,	322	$247,619	2	39	29	31	-	1	24	23	20	.88
Cottage City,	1,138	1,763,675	6	244	171	235	-	21	152	206	185	.90
Edgartown,	1,175	867,554	5	173	123	187	-	19	120	170	146	.86
Gay Head,	178	35,391	1	39	31	45	1	5	31	39	32	.84
Gosnold,	161	346,348	1	18	12	18	-	1	12	18	15	.83
Tisbury,	1,120	1,313,378	6	187	134	203	-	22	135	183	172	.94
West Tisbury,	457	422,857	4	54	39	69	-	7	42	62	55	.90
Totals,	4,551	$4,996,822	25	754	539	788	1	76	516	701	625	.89

BRISTOL COUNTY — Continued.

TOWNS AND CITIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.				
	Number of teachers required by the public schools.		Number of teachers who have graduated from college.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Acushnet,	–	7	–	–	4	–	$38 86	66-10	9-10	–	–	–	–	–
Attleborough,	3	63	7	3	31	$126 67	47 39	469-6	9-12	1	8	218	9-13	$11,133 98
Berkley,	–	7	–	–	–	–	34 00	63	9	–	–	–	–	–
Dartmouth,	2	21	3	1	2	67 50	33 59	201-13	8-15	3	3	38	9-8 9-7 9-10	1,800 00
Dighton,	–	12	–	–	6	–	37 52	104-19	8-14	–	–	–	–	–
Easton,	1	31	3	1	8	155 00	45 73	273-5	9-15	1	4	111	10	4,970 00
Fairhaven,	1	22	4	–	17	125 00	44 00	188	9-7	1	4	89	9-16	4,020 00
Fall River,	22	389	15	11	73	135 91	62 17	2,910	10	1	25	762	10	37,772 73
Freetown,	–	8	–	–	9	–	39 00	68-4	8-10	–	–	–	–	–
Mansfield,	2	21	4	1	11	104 44	43 33	185-16	9-5	1	4	100	9-9	4,137 51
New Bedford,	13	223	11	7	180	180 83	64 93	2,000-5	9-10	1	17	434	9-10	30,894 32
North Attleborough,	2	39	6	–	18	109 62	51 35	289-12	9-1	1	6	174	9-7	6,750 00
Norton,	1	13	1	–	9	85 00	35 41	87-8	8-15	1	2	37	9-7	1,641 17
Raynham,	–	8	–	–	2	–	42 00	69-14	8-14	–	–	–	–	–
Rehoboth,	–	15	–	–	3	–	31 76	124-16	8-5	–	–	–	–	–
Seekonk,	–	9	–	–	7	–	38 21	77-17	8-15	–	–	–	–	–
Somerset,	–	11	–	–	3	–	37 76	96-5	8-15	–	–	–	–	–
Swansea,	–	12	–	–	4	–	35 72	103-2	8-11	–	–	–	–	–
Taunton,	12	133	13	4	61	123 01	65 67	1,296-8	9-5	1	12	446	9-18	17,461 83
Westport,	2	17	1	–	2	41 00	33 20	167-6	8-16	1	1	13	9-16	575 00
Totals,	61	1,061	68	28	450	$134 54	$57 32	8,843-6	9-11	13	86	2,422	9-12	$121,156 54

DUKES COUNTY — CONTINUED.

Chilmark,	-	2	-	-	1	-	$40 00	16	8	-	-	-	-	-
Cottage City,	1	6	2	1	2	$75 00	41 67	51-12	8-12	1	2	28	8	$1,342 44
Edgartown,	1	6	2	-	2	65 00	45 00	43-10	8-14	1	2	25	9-10	1,408 00
Gay Head,	1	1	-	-	-	55 00	40 00	9	9	-	-	-	-	-
Gosnold,	-	1	-	-	1	-	50 00	9	9	-	-	-	-	-
Tisbury,	1	6	2	-	4	81 29	44 37	53-17	8-19	1	2	27	9-7	1,450 00
West Tisbury,	-	4	-	-	2	-	45 24	34-9	8-12	-	-	-	-	-
Totals,	4	26	6	1	12	$69 07	$43 73	217-8	8-14	3	6	80	8-19	$4,200 44

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Acushnet,	$3,269 36	$484 00	$621 86	$162 00	$360 00	$282 26	$312 11	$5,491 59	$2,230 50	$3,261 09
Attleborough,	35,765 62	2,257 00	10,319 07	862 71	1,766 69	3,742 40	2,417 72	57,131 21	634 00	56,497 21
Berkley,	2,164 00	–	258 65	82 85	300 00	150 84	329 86	3,286 20	2,118 44	1,167 76
Dartmouth,	9,178 06	1,395 50	2,079 50	275 00	750 00	626 18	299 97	14,604 21	758 84	13,845 37
Dighton,	5,502 80	–	959 54	5 15	525 00	527 52	85 96	7,605 97	2,259 90	5,346 07
Easton,	17,970 56	1,770 73	3,846 31	171 79	1,440 00	2,365 82	310 30	27,875 51	7,876 26	19,999 25
Fairhaven,	10,850 25	1,326 00	2,656 56	160 00	1,080 00	1,187 80	643 02	17,903 63	1,040 76	16,862 87
Fall River,	249,895 75	773 00	59,412 50	5,008 75	3,200 00	16,942 68	5,276 82	340,509 50	7,136 85	333,372 65
Freetown,	3,038 10	319 10	397 28	85 20	500 00	292 12	62 71	4,694 51	1,374 28	3,320 23
Mansfield,	11,754 80	660 84	2,735 65	200 00	660 00	1,834 45	520 35	18,366 09	1,819 49	16,546 60
New Bedford,	188,736 71	640 75	35,709 60	4,697 07	4,000 00	12,148 80	9,318 47	255,251 40	3,900 51	251,350 89
No. Attleborough,	19,724 55	–	5,282 69	21 49	1,900 00	1,731 50	1,847 59	30,507 82	13 50	30,494 32
Norton,	5,926 70	1,000 50	1,217 20	18 68	600 00	663 70	28 27	9,455 05	2,662 14	6,792 91
Raynham,	3,277 50	646 50	365 64	100 00	300 00	285 34	253 94	5,228 92	2,420 24	2,808 68
Rehoboth,	5,003 14	–	303 73	153 50	675 00	522 29	190 28	6,847 94	1,646 33	5,201 61
Seekonk,	3,769 30	10 00	366 96	85 00	362 50	310 16	30 75	4,934 67	2,070 94	2,863 73
Somerset,	6,403 05	551 05	585 87	126 01	500 00	439 31	71 10	8,676 39	1,242 32	7,434 07
Swansea,	5,590 00	–	759 95	164 50	458 36	296 48	149 85	7,419 14	2,013 99	5,405 15
Taunton,	87,589 10	1,489 00	17,555 39	860 00	2,200 00	4,389 23	4,739 39	118,822 11	2,708 75	116,113 36
Westport,	5,988 70	258 62	1,006 68	255 10	750 00	405 59	71 26	8,735 95	1,377 34	7,358 61
Totals,	$681,398 05	$13,582 59	$146,440 63	$13,494 80	$22,327 55	$49,144 47	$26,959 72	$953,347 81	$47,305 38	$906,042 43

DUKES COUNTY — CONTINUED.

Chilmark,	$838 60	$76 50	$57 50	$42 00	$159 96	$101 41	$22 55	$1,298 52	$645 00	$653 52
Cottage City,	2,900 00	234 00	709 17	125 00	400 00	294 00	–	4,662 17	312 50	4,349 67
Edgartown,	2,790 00	432 00	293 92	85 00	320 00	526 75	182 66	4,630 33	1,530 00	3,100 33
Gay Head,	855 00	–	48 00	30 00	80 00	180 43	96 96	1,290 39	1,164 39	126 00
Gosnold,	465 00	36 00	43 00	41 25	–	23 35	11 00	619 60	544 60	75 00
Tisbury,	3,231 51	206 25	486 60	60 00	319 92	344 46	43 57	4,692 31	1,574 85	3,117 46
West Tisbury,	1,628 75	–	280 83	20 00	319 92	146 41	20 00	2,415 91	1,735 52	680 39
Totals,	$12,708 86	$984 75	$1,919 02	$403 25	$1,599 80	$1,616 81	$376 74	$19,609 23	$7,506 86	$12,102 37

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Acushnet,	–	–	$168 16	$168 16	–	$168 16	$3,429 25	–	–	$282 21
Attleborough,	$8,042 86	$2,850 29	5,256 41	16,149 56	–	16,149 56	72,646 77	–	–	2,095 62
Berkley,	2,232 34	–	321 24	2,553 58	–	2,553 58	3,721 34	–	–	7 94
Dartmouth,	800 00	244 79	705 15	1,749 94	–	1,749 94	15,595 31	$2,000 00	$84 84	352 27
Dighton,	–	–	311 76	311 76	–	311 76	5,657 83	–	–	191 55
Easton,	–	–	1,489 46	1,489 46	–	1,489 46	21,488 71	100,000 00	7,727 48	795 08
Fairhaven,	–	–	606 85	606 85	–	606 85	17,469 72	7,500 00	301 59	521 60
Fall River,	48,561 59	1,141 92	19,993 55	69,697 06	–	69,697 06	403,069 71	50,000 00	2,513 16	–
Freetown,	–	–	372 13	372 13	–	372 13	3,692 36	–	–	223 28
Mansfield,	6,347 94	–	762 18	7,110 12	–	7,110 12	23,656 72	–	–	565 13
New Bedford,	124,018 21	2,866 64	9,281 51	136,166 36	–	136,166 36	387,517 25	51,000 00	3,060 00	889 49
No. Attleborough,	–	1,314 00	1,116 43	2,430 43	–	2,430 43	32,924 75	–	–	1,183 65
Norton,	–	–	539 53	539 53	–	539 53	7,332 44	–	–	396 26
Raynham,	–	–	304 49	304 49	–	304 49	3,113 17	–	–	127 81
Rehoboth,	–	–	183 29	183 29	–	183 29	5,384 90	–		358 57
Seekonk,	–	246 00	222 87	468 87	–	468 87	3,332 60	8,476 00	339 04	363 73
Somerset,	1,145 88	297 88	148 41	1,592 17	–	1,592 17	9,026 24	–	–	106 50
Swansea,	3,423 42	530 05	178 78	4,132 25	–	4,132 25	9,537 40	–	–	349 04
Taunton,	26,947 00	–	6,467 13	33,414 13	–	33,414 13	149,527 49	–	–	–
Westport,	180 00	251 50	377 18	808 68	–	808 68	8,167 29	–	–	527 60
Totals,	$221,699 24	$9,743 07	$48,806 51	$280,248 82	–	$280,248 82	$1,186,291 25	$218,976 00	$14,026 11	$9,337 33

DUKES COUNTY — CONTINUED.

Chilmark,	–	$31 81	–	$31 81	–	$31 81	$685 33	–	–	–
Cottage City,	–	67 32	$122 41	189 73	–	189 73	4,539 40	–	–	$97 67
Edgartown,	–	252 79	47 61	300 40	–	300 40	3,400 73	–	–	86 65
Gay Head,	–	–	–	–	–	–	126 00	–	–	6 00
Gosnold,	–	–	–	–	–	–	75 00	–	–	–
Tisbury,	–	–	52 47	52 47	–	52 47	3,169 93	–	–	118 52
West Tisbury,	–	–	–	–	–	–	680 39	–	–	–
Totals,	–	$351 92	$222 49	$574 41	–	$574 41	$12,676 78	–	–	$308 84

BRISTOL COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Acushnet,	$957 29	$300 00	–	–	–	–	–	–	–	–
Attleborough,	–	740 82	–	–	2	29	–	–	–	–
Berkley,	938 20	–	–	–	–	–	–	–	–	–
Dartmouth,	–	100 00	–	–	–	–	–	–	–	–
Dighton,	1,176 39	–	–	–	–	–	–	–	–	–
Easton,	–	–	–	–	–	–	–	–	–	–
Fairhaven,	–	5,500 00	–	–	–	–	–	–	–	–
Fall River,	–	–	–	–	16	5,421	–	$3,345 00	–	–
Freetown,	957 29	–	–	–	–	–	–	–	–	–
Mansfield,	–	–	–	–	–	–	–	–	–	–
New Bedford,	–	–	1	61	8	2,833	$8,400 00	4,025 00	–	–
North Attleborough,	–	255 00	–	–	–	–	–	–	–	–
Norton,	1,176 39	–	1	115	–	–	10,000 00	–	$825,000 00	$23,500 00
Raynham,	1,176 39	–	–	–	–	–	–	–	–	–
Rehoboth,	1,176 39	–	–	–	–	–	–	–	–	–
Seekonk,	675 83	–	–	–	–	–	–	–	–	–
Somerset,	1,026 39	–	–	–	–	–	–	–	–	–
Swansea,	807 30	62 15	–	–	–	–	–	–	–	–
Taunton,	–	300 00	1	54	1	785	1,979 00	–	8,500 00	425 00
Westport,	807 30	30 00	–	–	–	–	–	–	–	–
Totals,	$10,875 16	$7,287 97	3	230	27	9,068	$20,379 00	$7,370 00	$833,500 00	$23,925 00

DUKES COUNTY — CONCLUDED.

Chilmark,	$1,025 84	–	–	–	–	–	–	–	–	–
Cottage city,	150 00	–	–	–	–	–	–	–	–	–
Edgartown,	957 29	–	–	–	–	–	–	–	–	–
Gay Head,	1,157 29	–	–	–	–	–	–	–	–	–
Gosnold,	500 00	–	–	–	–	–	–	–	–	–
Tisbury,	807 30	–	–	–	–	–	–	–	–	–
West Tisbury,	1,025 83	–	–	–	–	–	–	–	–	–
Totals,	$5,623 55	–	–	–	–	–	–	–	–	–

ESSEX COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Amesbury,	8,840	$5,346,227	26	1,540	1,133	1,181	5	117	790	1,057	1,001	.95
Andover,	6,632	5,902,668	32	1,211	891	1,334	99	138	806	1,152	1,057	.92
Beverly,	15,223	20,815,175	60	2,651	1,906	3,116	–	387	1,831	2,670	2,482	.93
Boxford,	665	1,091,737	7	103	79	101	1	2	79	76	73	.96
Danvers,	9,063	5,341,280	35	1,334	972	1,640	6	213	1,104	1,473	1,373	.93
Essex,	1,790	1,056,153	9	357	259	366	4	32	252	346	316	.91
Georgetown,	1,840	984,905	8	295	210	263	–	8	214	267	244	.92
Gloucester,	26,011	21,393,396	106	4,597	3,288	5,032	63	608	3,090	4,599	4,428	.96
Groveland,	2,401	1,055,941	13	390	270	460	–	51	288	424	392	.92
Hamilton,	1,646	2,924,030	8	286	201	287	–	12	190	242	225	.93
Haverhill,	37,830	26,964,866	143	6,636	4,674	5,885	207	660	3,623	5,258	4,818	.92
Ipswich,	5,205	3,857,936	20	901	624	883	18	101	600	792	729	.92
Lawrence,	70,050	46,235,468	182	12,546	9,080	8,409	95	519	6,105	7,574	7,136	.94
Lynn,	77,042	56,157,073	222	11,836	8,590	11,844	–	943	7,052	9,685	8,969	.93
Lynnfield,	797	718,707	4	118	80	115	–	3	81	97	89	.92
Manchester,	2,618	10,927,392	10	462	324	449	–	66	276	405	383	.95
Marblehead,	7,209	7,193,325	28	1,125	833	1,335	70	140	757	1,239	1,142	.92
Merrimac,	1,884	1,204,832	11	321	246	408	4	62	249	367	345	.94
Methuen,	8,676	5,178,157	36	1,660	1,211	1,571	15	102	1,089	1,424	1,330	.93
Middleton,	1,068	717,433	3	157	127	160	–	2	120	131	118	.90
Nahant,	922	5,528,293	5	125	98	146	–	25	–	131	113	.87
Newbury,	1,480	1,225,767	6	200	161	230	2	4	175	204	184	.90
Newburyport,	14,675	10,889,592	45	2,421	1,745	2,207	2	273	1,745	2,020	1,866	.92
North Andover,	4,614	4,462,302	25	834	574	888	5	74	598	809	764	.94
Peabody,	13,098	8,924,954	45	2,423	1,689	2,073	9	205	1,343	1,876	1,720	.92

Rockport,	4,447	3,051,252	19	834	592	844	2	56	579	802	774	.96
Rowley,	1,388	741,915	8	242	163	210	-	2	161	196	178	.91
Salem,	37,627	29,252,544	121	6,832	5,030	5,293	252	644	2,925	4,683	4,292	.91
Salisbury,	1,622	847,445	8	275	228	269	2	10	226	228	203	.89
Saugus,	6,253	4,555,686	29	1,301	941	1,495	6	132	1,021	1,294	1,173	.91
Swampscott,	5,141	8,147,627	19	753	527	835	8	72	567	772	717	.93
Topsfield,	1,095	1,015,930	4	116	79	133	-	9	97	123	108	.88
Wenham,	924	2,054,850	5	164	118	145	2	2	109	134	128	.96
West Newbury,	1,405	1,047,766	10	223	174	283	1	18	207	223	205	.92
Totals,	381,181	$306,812,624	1,312	65,269	47,117	59,890	878	5,692	38,349	52,773	49,075	.93

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Amesbury,	2	33	8	–	15	$125 00	$44 42	250	9-12	1	8	248	10	$7,070 00
Andover,	2	40	6	2	20	131 58	57 75	291-10	9-2	1*	7	119	9-10	7,789 70
Beverly,	7	78	18	2	40	125 71	53 95	600	10	1	17	462	10	25,002 03
Boxford,	1	5	–	–	4	54 00	49 00	65-10	9-7	1†	1	11	9	1,210 00
Danvers,	4	41	7	4	17	113 75	47 77	327	9-7	1	9	234	9-11	9,806 10
Essex,	1	11	4	–	3	92 00	37 00	79-7	8-16	1	4	59	9-15	2,800 00
Georgetown,	–	9	–	–	8	–	31 60	72	9	1‡	3	43	10	4,760 00
Gloucester,	6	126	13	1	21	146 00	44 33	1,012-6	9-11	1	16	421	9-9	14,430 00
Groveland,	1	14	3	–	11	100 00	34 71	114-10	8-16	1	3	67	9-15	2,550 00
Hamilton,	–	9	–	–	2	–	47 03	74-2	9-5	–	–	–	–	–
Haverhill,	12	173	14	–	45	131 23	61 45	1,394-5	9-15	1	21	541	9-15	23,700 00
Ipswich,	1	22	4	2	5	180 00	43 00	191	9-11	1	4	103	9-13	4,865 00
Lawrence,	18	245	17	7	45	140 59	50 88	1,765-8	9-14	1	24	649	9-15	30,967 63
Lynn,	22	249	23	4	85	152 31	61 01	2,220	10	2	33	873	10 10	51,727 80
Lynnfield,	–	4	–	–	2	–	40 45	37-5	9-6	–	–	–	–	–
Manchester,	2	12	4	–	8	125 00	57 50	95-14	9-11	1	4	76	9-13	4,930 00
Marblehead,	1	36	1	1	17	130 00	47 53	279-17	9-19	1	6	136	10	5,750 00
Merrimac,	2	11	3	–	3	87 50	40 15	105	9-10	1	3	70	10	2,555 00
Methuen,	4	44	3	–	22	115 00	46 93	326-9	9 2	1	6	104	9-13	6,163 69
Middleton,	–	3	–	–	1	–	44 00	30	10	–	–	–	–	–
Nahant,	1	6	2	1	2	145 94	58 01	46-5	9-5	1	2	14	9-5	2,500 00
Newbury,	–	7	–	–	1	–	40 80	57-18	9-11	–	–	–	–	–
Newburyport,	5	51	9	–	3	138 00	48 17	450	10	1	11	299	10	12,600 00
North Andover,	4	25	3	2	11	90 55	44 38	228-10	9-10	1	4	94	10	3,850 00
Peabody,	4	55	7	–	30	135 00	53 34	427-10	9-10	1	9	238	9-8	10,639 62

Rockport,	1	21	1	–	13	100 00	41 22	170-1	8-19	1	3	100	9-11	3,130 40
Rowley,	–	8	–	–	8	–	33 00	67-18	8-9	–	–	–	–	–
Salem,	12	131	15	5	99	167 27	57 71	1,125-5	9-5	1	19	559	9-6	24,854 81
Salisbury,	–	8	–	–	1	–	37 25	71-6	8-18	–	–	–	–	–
Saugus,	1	35	5	2	18	140 00	47 80	262-16	9-1	1	5	116	9-14	4,800 00
Swampscott,	1	23	4	–	11	180 00	62 27	179-11	9-9	1	5	100	9-12	5,640 00
Topsfield,	1	5	2	–	4	80 00	36 60	36	9	1	2	24	9-15	1,283 00
Wenham,	–	6	–	1	3	–	39 00	46-4	9-5	–	–	–	–	–
West Newbury,	2	10	3	1	3	69 00	36 44	85	8-10	1	2	24	9-12	1,965 00
Totals,	118	1,556	179	35	581	$135 63	$52 56	12,585-7	9-12	28	231	5,784	9-14	$277,339 78

* Punchard Free School. † Barker Free School. ‡ Perley Free School.

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent of schools.	Text-books and school supplies.	School sundries.			
Amesbury,	$16,844 38	$298 56	$2,933 04	$23 50	$1,800 00	$1,370 72	$1,006 28	$24,276 48	$242 00	$24,034 48
Andover,	24,652 60	1,279 29	4,838 43	-	1,800 00	1,834 88	558 00	34,963 20	3,164 12	31,799 08
Beverly,	59,250 80	2,038 74	12,192 73	1,265 67	2,200 00	4,184 87	1,729 35	82,862 16	-	82,862 16
Boxford,	2,619 23	-	397 65	67 17	175 00	203 43	134 24	3,596 72	1,985 41	1,611 31
Danvers,	24,115 25	985 00	5,015 92	141 20	1,540 00	2,700 10	1,288 38	35,785 85	640 22	35,145 63
Essex,	4,650 50	241 50	1,065 79	70 00	310 00	969 51	272 70	7,580 00	1,703 89	5,876 11
Georgetown,	3,511 75	859 50	835 53	6 25	600 00	562 90	120 06	6,495 99	1,403 30	5,092 69
Gloucester,	65,171 00	2,000 00	17,804 50	1,360 00	2,300 00	5,277 83	1,708 52	95,621 85	-	95,621 85
Groveland,	6,227 40	-	1,496 34	145 00	600 00	668 72	187 36	9,324 82	1,595 31	7,729 51
Hamilton,	6,619 95	851 88	768 68	196 00	310 00	428 43	135 04	9,309 98	307 00	9,002 98
Haverhill,	115,133 54	1,508 20	19,666 03	1,315 43	2,500 00	12,887 49	6,606 73	159,617 42	507 00	159,110 42
Ipswich,	11,163 00	653 00	1,469 06	154 00	771 85	1,197 20	1,007 21	16,415 32	2,821 50	13,593 82
Lawrence,	161,375 80	-	31,568 80	3,066 66	3,000 00	12,855 99	5,084 82	216,952 07	-	216,952 07
Lynn,	190,219 59	-	32,955 34	4,752 30	2,772 79	15,597 09	4,596 67	250,893 78	1,034 62	249,859 16
Lynnfield,	2,703 00	200 00	548 50	60 00	190 00	100 31	59 11	3,860 92	1,049 79	2,811 13
Manchester,	10,073 75	990 00	1,902 83	-	1,621 10	1,484 07	1,117 40	17,189 15	-	17,189 15
Marblehead,	18,381 79	177 16	3,820 23	50 00	945 00	1,754 51	856 14	25,984 83	-	25,984 83
Merrimac,	6,432 48	165 78	1,442 97	165 00	750 00	586 16	464 59	10,006 98	2,348 33	7,658 65
Methuen,	22,325 57	100 00	6,502 11	78 80	1,200 00	1,793 27	1,483 31	33,483 06	736 50	32,746 56
Middleton,	1,911 50	779 00	394 69	108 00	150 00	187 75	92 35	3,623 29	1,423 24	2,200 05
Nahant,	5,030 64	-	1,300 95	275 00	-	553 98	248 02	7,408 59	-	7,408 59
Newbury,	2,978 45	954 70	951 85	75 00	356 60	460 80	180 95	5,958 35	1,559 25	4,399 10
Newburyport,	31,120 71	-	6,262 30	650 00	1,200 00	2,107 20	696 29	42,036 50	2,453 45	39,583 05
North Andover,	14,034 26	-	3,876 24	237 75	775 00	1,418 38	221 75	20,563 38	-	20,563 38
Peabody,	31,775 93	504 00	6,700 54	685 28	1,720 00	3,851 11	1,171 69	46,408 55	189 00	46,219 55

Rockport,	10,584 00	–	2,037 01	54 10	980 00	1,127 21	508 62	15,290 94	–	15,290 94
Rowley,	3,077 25	–	670 67	92 71	300 00	214 90	264 90	4,620 43	1,636 36	2,984 07
Salem,	99,511 66	225 00	16,412 91	2,010 00	2,500 00	7,494 96	1,593 86	129,748 39	–	129,748 39
Salisbury,	2,892 25	519 25	476 37	160 30	315 75	349 20	147 17	4,860 29	947 26	3,913 03
Saugus,	18,399 37	–	5,107 22	125 00	1,000 00	2,502 79	970 35	28,104 73	399 50	27,705 23
Swampscott,	16,805 02	–	3,953 17	835 00	–	2,280 44	105 65	23,979 28	–	23,979 28
Topsfield,	2,620 00	456 25	383 44	40 00	300 00	186 15	87 05	4,072 89	1,083 74	2,989 15
Wenham,	3,411 70	286 20	326 31	134 20	310 00	234 26	65 00	4,767 67	341 50	4,426 17
West Newbury,	4,536 75	282 25	692 14	119 50	664 00	383 43	9 50	6,687 57	1,836 80	4,850 77
Totals,	$1,000,160 87	$16,355 26	$196,770 29	$18,518 82	$35,957 09	$89,810 04	$34,779 06	$1,392,351 43	$31,409 09	$1,360,942 34

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Amesbury,	–	$2,300 00	$906 10	$3,206 10	–	$3,206 10	$27,240 58	–	–	–
Andover,	$4,000 00	1,891 88	870 32	6,762 20	–	6,762 20	38,561 28	$77,005 00	$3,526 62	–
Beverly,	24,798 07	20,233 09	3,779 69	48,810 85	–	48,810 85	131,673 01	3,000 00	134 04	$437 77
Boxford,	–	–	138 07	138 07	–	138 07	1,749 38	3,400 00	121 63	–
Danvers,	–	1,330 02	392 56	1,722 58	–	1,722 58	36,868 21	–	–	1,970 29
Essex,	–	814 05	389 58	1,203 63	–	1,203 63	7,079 74	–	–	127 85
Georgetown,	2,800 00	77 68	–	2,877 68	–	2,877 68	7,970 37	–	–	220 37
Gloucester,	3,900 00	5,015 74	11,046 85	19,962 59	–	19,962 59	115,584 44	13,000 00	132 99	1,054 63
Groveland,	–	–	599 54	599 54	–	599 54	8,329 05	–	–	–
Hamilton,	–	–	154 84	154 84	–	154 84	9,157 82	–	–	388 66
Haverhill,	19,320 00	3,132 66	6,887 87	29,340 53	$507 00	28,833 53	187,943 95	6,020 00	258 00	–
Ipswich,	–	2,053 14	1,157 00	3,210 14	–	3,210 14	16,803 96	75,934 00	2,821 50	404 45
Lawrence,	66,464 73	1,304 35	14,467 51	82,236 59	–	82,236 59	299,188 66	–	–	–
Lynn,	25,000 00	2,216 59	9,506 77	36,723 36	–	36,723 36	286,582 52	–	–	–
Lynnfield,	–	274 39	47 14	321 53	–	321 53	3,132 66	–	–	–
Manchester,	42,300 00	653 90	–	42,953 90	–	42,953 90	60,143 05	–	–	–
Marblehead,	–	–	1,027 70	1,027 70	–	1,027 70	27,012 53	–	–	–
Merrimac,	–	–	552 10	552 10	–	552 10	8,210 75	–	–	126 22
Methuen,	–	546 87	1,311 45	1,858 32	–	1,858 32	34,604 88	–	–	973 05
Middleton,	–	–	121 52	121 52	–	121 52	2,321 57	–	–	129 12
Nahant,	15,055 08	–	–	15,055 08	–	15,055 08	22,463 67	–	–	–
Newbury,	–	–	223 51	223 51	–	223 51	4,622 61	–	–	210 00
Newburyport,	–	90 00	500 00	590 00	–	590 00	40,173 05	15,250 00	685 00	–
North Andover,	2,479 10	–	2,339 78	4,818 88	–	4,818 88	25,382 26	4,000 00	186 94	–
Peabody,	7,000 00	–	3,131 07	10,131 07	–	10,131 07	56,350 62	1,963 25	71 01	1,213 33

Rockport,	-	132 00	329 42	461 42	-	461 42	15,752 36	-	-	-
Rowley,	11,550 56	74 65	65 59	11,690 80	-	11,690 80	14,674 87	-	-	-
Salem,	-	1,500 00	6,286 87	7,786 87	-	7,786 87	137,535 26	5,425 00	217 00	1,762 85
Salisbury,	-	-	432 51	432 51	-	432 51	4,345 54	-	-	-
Saugus,	22,149 31	-	484 69	22,634 00	-	22,634 00	50,339 23	-	-	-
Swampscott,	25,414 17	2,252 12	616 90	28,283 19	-	28,283 19	52,262 47	1,469 12	49 96	-
Topsfield,	-	-	24 50	24 50	-	24 50	3,013 65	-	-	111 23
Wenham,	-	-	108 95	108 95	-	108 95	4,535 12	-	-	225 52
West Newbury,	-	-	126 83	126 83	-	126 83	4,977 60	-	-	-
Totals,	$272,231 02	$45,893 13	$68,027 23	$386,151 38	$507 00	$385,644 38	$1,746,586 72	$206,466 37	$8,204 69	$9,355 34

ESSEX COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amesbury,	–	–	–	–	2	649	–	$612 00	–	–
Andover,	–	–	2	478	–	–	$66,379 50	–	$338,142 51	$14,231 12
Beverly,	–	$600 00	–	–	3	46	–	1,519 00	–	–
Boxford,	$1,026 40	–	–	–	–	–	–	–	–	–
Danvers,	–	270 00	1	25	–	–	–	–	20,000 00	–
Essex,	807 29	–	–	–	–	–	–	–	–	–
Georgetown,	957 29	–	–	–	–	–	–	–	–	–
Gloucester,	–	–	–	–	2	243	–	2,000 00	–	–
Groveland,	1,026 39	–	–	–	–	–	–	–	–	–
Hamilton,	–	–	–	–	–	–	–	–	–	–
Haverhill,	–	–	1	141	5	1,952	60,000 00	–	300,000 00	–
Ipswich,	–	–	–	–	–	–	–	–	–	–
Lawrence,	–	–	–	–	10	3,912	–	–	–	–
Lynn,	–	–	–	–	6	3,040	–	–	–	–
Lynnfield,	825 84	–	–	–	–	–	–	–	–	–
Manchester,	–	–	–	–	–	–	–	–	–	–
Marblehead,	–	–	–	–	–	–	–	–	–	–
Merrimac,	1,026 39	–	–	–	1	20	–	8,000 00	–	–
Methuen,	–	–	–	–	1	55	–	300 00	–	–
Middleton,	957 29	–	–	–	–	–	–	–	–	–
Nahant,	–	–	–	–	–	–	–	–	–	–
Newbury,	1,026 39	–	–	–	1	6	–	–	–	–
Newburyport,	–	–	1	78	3	581	–	357 80	90,000 00	3,000 00
North Andover,	–	–	–	–	–	–	–	–	–	–
Peabody,	–	–	–	–	1	615	–	–	–	–

Rockport,	-	-	-	-	-	-	-	-	-	-
Rowley,	825 83	-	-	-	-	-	-	-	-	-
Salem,	-	-	-	-	11	2,798	-	43,000 00	-	-
Salisbury,	1,176 39	-	-	-	-	-	-	-	-	-
Saugus,	-	-	-	-	-	-	-	-	-	-
Swampscott,	-	-	-	-	-	-	-	-	-	-
Topsfield,	957 30	-	-	-	-	-	-	-	-	-
Wenham,	600 83	-	-	-	-	-	-	-	-	-
West Newbury,	807 30	-	-	-	-	-	-	-	-	-
Totals,	$12,020 93	$870 00	5	722	46	13,917	$126,379 50	$55,788 80	$748,142 51	$17,231 12

FRANKLIN COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Ashfield,	959	$588,280	11	152	114	193	2	30	123	158	148	.93
Bernardston,	769	421,438	6	127	102	151	3	10	98	124	120	.97
Buckland,	1,500	687,935	8	274	194	241	–	3	197	231	216	.94
Charlemont,	1,002	388,875	9	162	124	167	1	1	122	147	140	.95
Colrain,	1,780	619,496	14	355	276	327	3	7	252	307	281	.91
Conway,	1,340	672,084	12	215	148	270	5	23	148	217	201	.92
Deerfield,	2,112	1,476,560	13	346	252	325	5	11	221	269	242	.90
Erving,	1,094	718,250	7	176	129	206	2	1	156	191	174	.91
Gill,	1,023	419,109	5	167	114	149	–	1	121	122	111	.91
Greenfield,	9,156	6,773,156	42	1,507	1,044	1,697	67	189	1,039	1,558	1,434	.92
Hawley,	448	153,589	6	83	56	77	1	2	74	58	53	.91
Heath,	356	154,152	6	61	43	80	1	4	55	70	64	.92
Leverett,	703	302,447	4	117	95	120	2	1	95	112	98	.88
Leyden,	408	203,421	6	72	49	87	3	5	61	70	62	.89
Monroe,	269	151,819	4	50	43	59	2	1	43	54	49	.92
Montague,	7,015	4,062,223	31	1,387	1,000	1,215	7	104	832	1,122	1,060	.94
New Salem,	672	314,220	7	101	84	135	2	3	81	114	99	.87
Northfield,	2,017	1,239,125	8	253	175	274	3	25	183	225	204	.91
Orange,	5,578	3,423,900	23	1,075	712	1,102	1	212	700	1,031	948	.92
Rowe,	533	176,015	6	99	84	86	2	2	72	71	68	.95
Shelburne,	1,515	1,011,674	10	224	177	258	1	36	177	240	229	.96
Shutesbury,	374	213,839	3	64	45	60	2	2	43	53	48	.90
Sunderland,	910	462,608	4	150	101	121	–	3	95	112	106	.94

Warwick,	527	347,390	4	124	77	120	1	6	80	100	89	.89
Wendell,	480	242,559	5	93	76	76	–	1	63	70	66	.94
Whately,	822	430,545	6	105	74	95	2	3	64	79	72	.92
Totals,	43,362	$25,654,709	260	7,539	5,388	7,691	118	686	5,195	6,905	6,382	.92

HAMPDEN COUNTY.

Agawam,	2,795	$1,762,790	15	482	373	474	4	20	338	417	372	.89
Blandford,	746	426.600	7	133	100	157	2	7	102	111	97	.87
Brimfield,	894	401,273	7	145	102	149	4	3	125	121	107	.89
Chester,	1,366	640,507	11	241	190	309	6	24	190	254	233	.92
Chicopee,	20,191	10,071,770	72	3,644	2,663	2,696	86	152	1,710	2,356	2,135	.91
East Longmeadow,	1,327	534,759	9	311	223	363	1	8	283	289	260	.90
Granville,	865	402.916	9	150	115	185	–	11	129	152	138	.91
Hampden,	561	373,189	6	98	72	120	–	4	89	101	93	.92
Holland,	151	84,202	1	18	17	21	–	1	18	17	15	.88
Holyoke,	49,934	41,723,460	140	10,385	7,449	6,802	391	550	4,339	5,909	5,419	.91
Longmeadow,	964	1,215.172	5	203	155	162	–	3	133	138	123	.89
Ludlow,	3,881	2,667,243	20	620	491	692	3	31	498	574	525	.91
Monson,	4,344	1,698,168	23	644	452	754	5	114	527	682	631	.93
Montgomery,	259	143,336	5	48	32	53	1	3	38	42	36	.86
Palmer,	7,755	3,293,299	27	1,229	876	1,249	15	119	840	1,107	1,045	.94
Russell,	1,053	613.734	7	178	131	158	5	1	107	126	111	.88
Southwick,	1,048	588,490	10	187	148	207	3	9	162	180	162	.90
Springfield,	73,540	80,904,477	273	12,101	8,572	13,161	838	1,142	7,859	11,183	10,300	.92
Tolland,	274	171,314	2	46	25	38	–	3	30	23	20	.87
Wales,	645	280,074	4	122	98	120	2	–	84	98	87	.90
Westfield,	13,611	8,725,433	58	2,285	1,555	2,308	82	283	1,443	2,057	1,891	.92
West Springfield,	8,101	5,767,365	41	1,573	1,092	1,812	86	194	1,085	1,575	1,435	.91
Wilbraham,	1,708	1,008,771	13	250	183	271	4	13	185	243	227	.93
Totals,	196,013	$163,498,342	765	35,093	25,114	32,261	1,538	2,695	20,314	27,755	25,462	.91

FRANKLIN COUNTY — Continued.

Towns and Cities.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.				
	Number of teachers required by the public schools.		Number of teachers who have graduated from college.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Ashfield,	1	13	3	–	2	$90 00	$29 38	96-10	8-15	1	3	30	10	$1,396 26
Bernardston,	1	6	2	–	2	90 00	36 00	52-8	8-14	1*	2	30	10	1,749 47
Buckland,	–	9	–	–	3	–	39 50	68-18	8-12	–	–	–	–	–
Charlemont,	–	9	–	1	1	–	34 40	73	8-2	–	–	–	–	–
Colrain,	–	17	–	–	2	–	30 21	124-10	8-18	–	–	–	–	–
Conway,	1	12	2	–	2	70 00	27 84	98	8 3	1	2	33	10	1,350 00
Deerfield,	–	13	–	1	8	–	36 62	115-12	8-18	1†	4	43	9-1	3,600 51
Erving,	–	7	–	1	2	–	48 45	59-9	8-10	–	–	–	–	–
Gill,	–	5	–	–	1	–	40 80	43-14	8-14	–	–	–	–	–
Greenfield,	2	48	6	–	30	130 00	46 99	393-6	9-7	1	7	196	9-10	8,175 95
Hawley,	–	6	–	–	1	–	30 66	48	8	–	–	–	–	–
Heath,	–	6	–	1	–	–	32 20	48	8	–	–	–	–	–
Leverett,	–	4	–	–	2	–	37 50	35-3	8-16	–	–	–	–	–
Leyden,	–	6	–	1	3	–	36 00	50-10	8-8	–	–	–	–	–
Monroe,	–	4	–	–	3	–	38 56	36	9	–	–	–	–	–
Montague,	2	38	9	–	24	115 00	49 73	287-2	9-8	2	9	160	{9-14 / 9-14}	7,275 00
New Salem,	1	7	2	–	1	80 00	33 35	60-9	8-12	1	2	29	10	1,275 00
Northfield,	1	8	1	1	2	66 00	40 00	72	9	–	–	–	–	–
Orange,	1	27	5	1	13	140 00	46 94	201-15	8-15	1	6	173	9-15	5,196 13
Rowe,	–	6	–	–	1	–	34 00	48	8	–	–	–	–	–
Shelburne,	1	14	5	–	3	130 00	40 15	89-3	8-18	1	5	129	9-14	5,203 91
Shutesbury,	–	3	–	–	–	–	37 33	25-3	8-8	–	–	–	–	–
Sunderland,	–	5	–	–	1	–	37 40	36	9	–	–	–	–	–

Warwick,	–	4	–	–	1	–	37 00	36	9	–	–	–	–	–
Wendell,	–	5	–	–	1	–	32 00	40	8	–	–	–	–	–
Whately,	–	6	–	–	5	–	38 33	54	9	–	–	–	–	–
Totals,	11	288	35	7	114	$105 09	$40 27	2,292-12	8-16	10	40	823	9-15	$35,222 23

HAMPDEN COUNTY — Continued.

Agawam,	–	15	–	–	10	–	$42 83	128-15	8-11	–	–	–	–	–
Blandford,	–	7	–	–	4	–	35 14	56	8	–	–	–	–	–
Brimfield,	–	7	–	1	2	–	34 90	60-14	8-13	1†	4	25	9-16	–
Chester,	1	10	1	–	6	$75 00	37 90	96-14	8-15	1	2	27	10	$1,746 25
Chicopee,	1	77	6	2	50	180 00	46 51	665-3	9-5	1	7	150	9-15	8,730 00
East Longmeadow,	–	9	–	–	5	–	43 28	82	9-2	–	–	–	–	–
Granville,	–	9	–	–	3	–	35 77	83-5	9-5	–	–	–	–	–
Hampden,	–	6	–	–	2	–	34 00	57	9-10	–	–	–	–	–
Holland,	–	1	–	–	1	–	48 00	8-13	8-13	–	–	–	–	–
Holyoke,	19	171	23	8	68	137 22	61 25	1,354-7	9-13	1	24	658	9-13	36,184 80
Longmeadow,	–	5	–	–	5	–	47 52	48-19	9-16	–	–	–	–	–
Ludlow,	1	21	2	–	13	80 00	43 00	176	8-16	1	2	22	9-12	1,644 97
Monson,	4	28	6	2	3	100 00	39 50	199-14	8-13	1§	7	103	9-14	2,695 90
Montgomery,	–	5	–	–	6	–	34 40	45	9	–	–	–	–	–
Palmer,	2	30	5	2	12	102 00	44 99	252-10	9-7	1	5	123	9-10	4,586 15
Russell,	–	7	–	–	5	–	34 35	68	9-14	–	–	–	–	–
Southwick,	–	10	–	–	4	–	37 20	85-9	8-11	–	–	–	–	–
Springfield,	29	329	35	31	205	165 37	63 04	2,648-1	9-14	2	50	1,155	9-11 9-11	79,516 48
Tolland,	–	2	–	–	–	–	37 00	17-10	8-15	–	–	–	–	–
Wales,	2	2	–	1	1	40 00	40 00	34-2	8-11	–	–	–	–	–
Westfield,	7	63	9	4	44	169 42	54 10	557-5	9-12	1	11	284	9-17	15,500 00
West Springfield,	5	41	4	1	26	94 37	46 51	374-15	9-3	1	6	176	9-14	7,575 69
Wilbraham,	–	13	–	1	9	–	41 00	117	9	–	–	–	–	–
Totals,	71	868	91	53	484	$141 96	$54 93	7,216-16	9-8	11	118	2,723	9-14	$158,180 24

* Powers Institute. † Deerfield Academy and Dickinson High School. ‡ Hitchcock Free Academy. § Monson Academy.

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashfield,	$3,708 00	$101 50	$211 55	$57 75	$625 00	$311 70	$1 00	$5,016 50	$2,420 37	$2,596 13
Bernardston,	3,043 00	731 70	370 46	98 00	360 00	260 97	81 69	4,945 82	2,377 89	2,567 93
Buckland,	4,266 00	502 83	501 76	40 00	450 00	228 53	50 25	6,039 37	2,484 27	3,555 10
Charlemont,	2,540 00	430 00	214 25	54 00	447 65	156 07	995 92	4,837 89	2,467 96	2,369 93
Colrain,	4,965 00	601 75	313 87	123 65	600 00	377 83	41 86	7,023 96	2,662 12	4,361 84
Conway,	3,462 47	315 37	806 84	77 50	479 40	186 36	180 01	5,507 95	1,554 18	3,953 77
Deerfield,	4,762 25	1,660 50	881 90	100 40	629 12	510 40	128 04	8,672 61	1,331 21	7,341 40
Erving,	3,597 33	414 29	696 34	41 75	552 64	300 46	42 52	5,645 33	1,377 09	4,268 24
Gill,	2,347 50	327 50	189 04	45 00	318 00	136 55	29 55	3,393 14	1,900 60	1,492 54
Greenfield,	26,982 50	1,702 20	6,283 91	100 00	2,000 00	2,656 72	2,013 78	41,739 11	1,022 25	40,716 86
Hawley,	1,596 00	122 10	72 26	31 10	272 40	143 12	203 87	2,440 85	1,709 03	731 82
Heath,	1,126 00	521 80	50 03	75 25	230 38	104 14	44 02	2,151 62	1,417 43	734 19
Leverett,	1,852 40	571 12	100 38	57 25	315 79	111 63	8 75	3,017 32	1,339 24	1,678 08
Leyden,	1,920 00	50 00	121 46	36 50	318 00	94 11	16 94	2,557 01	1,682 29	874 72
Monroe,	1,295 00	-	231 83	31 86	183 42	44 39	87 00	1,873 50	1,134 59	738 91
Montague,	19,633 61	2,673 89	4,634 19	129 75	1,726 26	2,600 20	1,141 32	32,539 22	727 70	31,811 52
New Salem,	3,166 50	351 25	181 36	-	571 44	108 94	15 00	4,394 49	2,363 62	2,030 87
Northfield,	3,730 56	441 20	725 54	5 30	632 00	358 81	100 73	5,994 14	1,211 88	4,782 26
Orange,	13,779 27	2,664 00	3,353 28	50 00	1,600 00	2,035 13	403 49	23,885 17	-	23,885 17
Rowe,	1,528 00	141 00	93 50	2 50	259 78	166 33	208 60	2,399 71	1,419 26	980 45
Shelburne,	5,144 00	217 00	658 94	53 00	450 00	348 78	57 59	6,929 31	2,410 64	4,518 67
Shutesbury,	1,097 00	487 63	49 51	47 00	236 84	141 22	29 07	2,088 27	1,313 66	774 61
Sunderland,	2,522 00	1,284 72	447 40	44 00	260 86	193 19	45 75	4,797 92	2,359 20	2,438 72

Warwick,	1,472 82	1,305 00	153 75	16 00	318 00	48 14	23 56	3,337 27	1,503 14	1,834 13
Wendell,	1,431 75	331 70	83 75	33 00	394 74	51 75	27 21	2,353 90	1,504 65	849 25
Whately,	2,467 50	240 00	159 25	100 00	214 68	316 24	117 36	3,615 03	1,920 31	1,694 72
Totals,	$123,436 46	$18,190 05	$21,586 35	$1,450 56	$14,446 40	$11,991 71	$6,094 88	$197,196 41	$43,614 58	$153,581 83

HAMPDEN COUNTY — Continued.

Agawam,	$7,856 97	$456 45	$1,440 37	$153 50	$699 56	$564 79	$57 96	$11,229 60	$1,474 16	$9,755 44
Blandford,	2,309 00	424 53	133 00	–	386 21	129 18	31 97	3,413 89	1,631 46	1,782 43
Brimfield,	2,632 00	289 80	235 05	46 25	450 00	179 12	7 00	3,839 22	1,552 59	2,286 63
Chester,	4,393 25	268 50	647 19	–	665 59	675 98	–	6,650 51	2,306 24	4,344 27
Chicopee,	41,566 48	1,865 12	9,859 06	750 00	2,000 00	2,592 36	1,424 63	60,057 65	104 50	59,953 15
East Longmeadow,	5,278 52	–	717 29	117 80	429 32	483 83	130 27	7,157 03	3,323 44	3,833 59
Granville,	2,896 20	323 35	188 79	50 00	450 00	171 10	29 99	4,109 43	1,789 77	2,319 66
Hampden,	2,327 10	55 08	313 63	106 50	319 62	242 58	42 73	3,407 24	1,595 23	1,812 01
Holland,	464 50	235 00	36 40	18 50	77 50	36 41	–	868 31	653 31	215 00
Holyoke,	138,261 48	467 00	27,701 65	3,550 00	2,933 34	7,215 28	9,444 87	189,573 62	–	189,573 62
Longmeadow,	4,778 00	299 75	605 28	20 00	236 68	223 58	63 86	6,227 15	1,736 61	4,490 54
Ludlow,	10,164 61	389 00	2,375 80	353 00	900 40	1,045 16	571 54	15,799 51	1,356 69	14,442 82
Monson,	11,269 20	344 35	1,400 15	156 00	1,050 00	994 57	126 04	15,340 31	2,403 49	12,936 82
Montgomery,	1,777 71	85 00	50 00	–	221 24	56 16	23 52	2,213 63	1,564 48	649 15
Palmer,	16,200 38	1,247 50	3,756 87	–	1,911 15	1,569 57	1,324 92	26,010 39	420 09	25,590 30
Russell,	2,566 70	277 90	241 55	3 00	357 04	213 92	19 65	3,679 76	1,360 26	2,319 50
Southwick,	3,896 00	–	342 07	96 00	450 00	212 34	19 02	5,015 43	2,624 43	2,391 00
Springfield,	285,019 67	864 20	64,887 56	6,804 42	6,199 96	30,616 95	6,428 75	400,821 51	8,103 36	392,718 15
Tolland,	697 00	495 60	40 50	57 00	300 00	76 31	–	1,666 41	1,002 89	663 52
Wales,	1,553 00	267 00	204 95	–	231 25	67 37	78 43	2,402 00	1,353 50	1,048 50
Westfield,	42,607 98	2,206 00	7,771 33	175 00	2,141 65	4,151 64	1,988 67	61,042 27	7,528 06	53,514 21
West Springfield,	24,284 01	394 25	5,635 84	68 00	1,666 66	1,799 26	314 46	34,162 48	2,089 25	32,073 23
Wilbraham,	5,699 57	–	925 15	109 32	703 06	1,053 18	24 95	8,515 23	1,917 81	6,597 42
Totals,	$618,499 33	$11,255 38	$129,509 48	$12,634 29	$24,780 23	$54,370 64	$22,153 23	$873,202 58	$47,891 62	$825,310 96

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashfield,	–	–	$17 85	$17 85	$17 85	–	$2,596 13	$900 00	$54 00	$51 95
Bernardston,	–	–	87 52	87 52	–	$87 52	2,655 45	15,973 35	560 82	69 25
Buckland,	–	–	243 26	243 26	–	243 26	3,798 36	–	–	61 36
Charlemont,	–	$162 71	–	162 71	–	162 71	2,532 64	3,600 00	111 48	55 23
Colrain,	–	96 15	111 15	207 30	–	207 30	4,569 14	–	–	84 80
Conway,	–	106 00	26 42	132 42	–	132 42	4,086 19	1,000 00	31 56	56 60
Deerfield,	–	146 70	224 90	371 60	–	371 60	7,713 00	–	–	99 76
Erving,	–	283 30	184 16	467 46	–	467 46	4,735 70	–	–	63 77
Gill,	$1,500 00	304 58	108 26	1,912 84	160 38	1,752 46	3,245 00	–	–	–
Greenfield,	–	7,967 23	1,860 65	9,827 88	–	9,827 88	50,544 74	–	–	–
Hawley,	–	–	121 65	121 65	–	121 65	853 47	–	–	28 29
Heath,	–	–	116 16	116 16	–	116 16	850 35	–	–	26 72
Leverett,	–	414 25	21 86	436 11	–	436 11	2,114 19	–	–	–
Leyden,	–	–	125 28	125 28	–	125 28	1,000 00	–	160 38	–
Monroe,	–	12 00	8 85	20 85	–	20 85	759 76	–	–	–
Montague,	–	211 60	952 14	1,163 74	–	1,163 74	32,975 26	–	–	–
New Salem,	–	–	112 65	112 65	–	112 65	2,143 52	–	–	36 62
Northfield,	–	1,210 10	216 74	1,426 84	–	1,426 84	6,209 10	–	–	182 08
Orange,	–	–	930 08	930 08	–	930 08	24,815 25	–	–	–
Rowe,	–	–	2 00	2 00	–	2 00	982 45	200 00	8 08	32 45
Shelburne,	–	–	344 87	344 87	–	344 87	4,863 54	14,000 00	500 00	65 09
Shutesbury,	–	–	3 85	3 85	–	3 85	778 46	–	–	7 85
Sunderland,	–	1,207 13	65 60	1,272 73	–	1,272 73	3,711 45	–	–	–

Warwick,	–	36 93	4 65	41 58	–	41 58	1,875 71	500 00	20 20	–
Wendell,	–	135 00	15 75	150 75	–	150 75	1,000 00	1,340 00	27 00	–
Whately,	–	536 15	205 12	741 27	–	741 27	2,435 99	–	–	–
Totals,	$1,500 00	$12,829 83	$6,111 42	$20,441 25	$178 23	$20,263 02	$173,844 85	$37,513 35	$1,473 52	$921 82

HAMPDEN COUNTY — Continued.

Agawam,	–	$256 33	$45 55	$301 88	–	$301 88	$10,057 32	$4,866 43	$244 04	–
Blandford,	–	88 67	–	88 67	–	88 67	1,871 10	–	–	$135 67
Brimfield,	–	289 18	57 40	346 58	–	346 58	2,633 21	379 86	–	–
Chester,	–	125 00	123 98	248 98	–	248 98	4,593 25	–	–	159 45
Chicopee,	–	13,185 77	2,322 38	15,508 15	–	15,508 15	75,461 30	–	–	–
East Longmeadow,	–	1,055 29	438 04	1,493 33	–	1,493 33	5,326 92	731 00	25 79	169 40
Granville,	–	–	118 79	118 79	–	118 79	2,438 45	–	–	82 34
Hampden,	–	171 01	–	171 01	–	171 01	1,983 02	–	–	106 48
Holland,	–	–	5 83	5 83	–	5 83	220 83	222 22	8 92	–
Holyoke,	$18,366 29	8,981 18	–	27,347 47	–	27,347 47	216,921 09	–	–	2,287 11
Longmeadow,	–	75 00	66 57	141 57	–	141 57	4,632 11	–	–	–
Ludlow,	3,000 00	321 43	281 06	3,602 49	–	3,602 49	18,045 31	–	–	231 75
Monson,	–	273 60	806 86	1,080 46	–	1,080 46	14,017 28	–	–	547 08
Montgomery,	–	–	9 56	9 56	–	9 56	658 71	–	–	58 81
Palmer,	–	382 77	626 45	1,009 22	–	1,009 22	26,599 52	850 00	29 99	597 53
Russell,	–	–	15 68	15 68	–	15 68	2,335 18	–	–	60 90
Southwick,	–	–	50 92	50 92	–	50 92	2,441 92	15,618 03	763 20	188 50
Springfield,	256,946 05	–	18,216 94	275,162 99	$379 27	274,783 72	667,501 87	–	–	–
Tolland,	–	867 46	–	867 46	–	867 46	1,530 98	–	–	63 52
Wales,	–	–	–	–	–	–	1,048 50	–	–	98 55
Westfield,	–	5,500 00	2,584 61	8,084 61	–	8,084 61	61,598 82	–	–	–
West Springfield,	–	2,413 86	263 00	2,676 86	–	2,676 86	34,750 09	14,339 05	780 25	1,306 00
Wilbraham,	10,178 23	–	525 04	10,703 27	–	10,703 27	17,300 69	1,308 40	78 50	206 99
Totals,	$288,490 57	$33,986 55	$26,558 66	$349,035 78	$379 27	$348,656 51	$1,173,967 47	$38,314 99	$1,930 69	$6,300 08

FRANKLIN COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Ashfield,	$957 29	–	–	–	–	–	–	–	–	–
Bernardston,	1,157 29	–	–	–	–	–	–	–	–	–
Buckland,	825 84	–	–	–	–	–	–	–	–	–
Charlemont,	1,100 84	–	–	–	–	–	–	–	–	–
Colrain,	957 29	–	–	–	–	–	–	–	–	–
Conway,	957 29	–	–	–	–	–	–	–	–	–
Deerfield,	807 29	$42 00	–	–	–	–	–	–	$49,904 70	$2,186 65
Erving,	300 00	–	–	–	–	–	–	–	–	–
Gill,	1,157 29	–	1	714	–	–	$45,017 05	–	921,406 45	13,083 18
Greenfield,	–	50 00	1	–	1	12	–	$700 00	20,000 00	–
Hawley,	1,232 29	–	–	–	–	–	–	–	–	–
Heath,	1,232 29	–	–	–	–	–	–	–	–	–
Leverett,	1,025 84	–	–	–	–	–	–	–	–	–
Leyden,	1,025 84	–	–	–	–	–	–	–	–	–
Monroe,	1,232 30	–	–	–	–	–	–	–	–	–
Montague,	–	–	–	–	1	235	–	–	–	–
New Salem,	1,232 30	–	–	–	–	–	–	–	2,500 00	125 00
Northfield,	675 83	–	1	449	–	–	37,700 00	–	736,000 00	15,300 00
Orange,	–	–	–	–	–	–	–	–	–	–
Rowe,	1,376 39	–	–	–	–	–	–	–	–	–
Shelburne,	957 30	–	–	–	–	–	4,109 00	–	26,542 54	887 23
Shutesbury,	1,025 83	–	–	–	–	–	–	–	–	–
Sunderland,	1,376 39	–	–	–	–	–	–	–	–	–

Warwick,	1,100 83	–	–	–	–	–	–	–	–	–
Wendell,	1,013 19	–	–	–	–	–	–	–	–	–
Whately,	500 00	–	–	–	–	–	–	–	–	–
Totals,	$23,227 04	$92 00	3	1,163	2	247	$86,826 05	$700 00	$1,756,353 69	$31,582 06

HAMPDEN COUNTY — Concluded.

Agawam,	$1,026 40	$51 38	–	–	1	53	–	$350 00	–	–
Blandford,	1,025 84	–	–	–	–	–	–	–	–	–
Brimfield,	1,157 29	–	–	–	–	–	–	–	$90,197 24	$4,744 62
Chester,	957 29	–	–	–	–	–	–	–	–	–
Chicopee,	–	–	–	–	5	1,323	–	–	–	–
East Longmeadow,	1,176 39	–	–	–	–	–	–	–	–	–
Granville,	1,100 84	–	–	–	–	–	–	–	–	–
Hampden,	1,157 29	–	–	–	–	–	–	–	–	–
Holland,	938 20	–	–	–	–	–	–	–	–	–
Holyoke,	–	–	–	–	8	4,631	–	3,000 00	–	–
Longmeadow,	1,176 39	5 00	–	–	1	25	–	–	–	–
Ludlow,	–	–	–	–	–	–	–	–	–	–
Monson,	1,026 39	117 92	1*	36	1	11	$3,145 50	–	106,389 25	4,874 17
Montgomery,	1,376 39	–	–	–	–	–	–	–	–	–
Palmer,	–	35 00	–	–	1	242	–	1,000 00	5,000 00	–
Russell,	957 30	–	–	–	–	–	–	–	–	–
Southwick,	825 83	–	–	–	–	–	–	–	–	–
Springfield,	–	909 19	–	–	7	2,176	–	15,000 00	205,600 00	–
Tolland,	575 00	–	–	–	–	–	–	–	–	–
Wales,	1,376 39	–	–	–	–	–	–	–	–	–
Westfield,	–	–	–	–	1	277	–	–	–	–
West Springfield,	–	–	–	–	–	–	–	–	–	–
Wilbraham,	1,026 39	–	1	130	–	–	8,760 00	–	60,000 00	1,410 00
Totals,	$16,879 62	$1,118 49	2	166	25	8,738	$11,905 50	$19,350 00	$467,186 49	$11,028 79

* United with high school.

HAMPSHIRE COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Amherst,	5,313	$3,599,900	18	769	573	905	3	163	598	833	768	.92
Belchertown,	2,088	872,150	19	424	299	498	13	52	331	411	384	.93
Chesterfield,	563	297,577	7	86	58	102	1	12	55	75	69	.93
Cummington,	740	312,016	8	133	107	150	-	4	114	132	124	.94
Easthampton,	6,808	3,781,772	29	1,128	898	1,258	3	72	866	1,128	1,046	.93
Enfield,	973	701,810	7	169	153	187	2	1	153	159	149	.93
Goshen,	277	159,074	4	54	46	63	2	-	37	48	43	.91
Granby,	747	490,543	6	127	113	153	-	14	111	133	119	.90
Greenwich,	475	268,015	3	91	70	77	-	2	70	67	61	.91
Hadley,	1,895	1,141,126	11	282	181	301	-	42	208	269	241	.90
Hatfield,	1,779	1,394,191	8	265	195	449	-	-	195	235	215	.91
Huntington,	1,451	566,825	11	299	222	383	-	46	253	322	290	.90
Middlefield,	399	187,547	6	101	83	137	3	-	83	100	91	.91
Northampton,	19,957	12,739,859	74	3,189	2,237	3,070	122	329	1,981	2,766	2,582	.93
Pelham,	460	197,798	4	93	63	90	1	5	69	73	65	.89
Plainfield,	382	178,911	5	82	55	77	-	8	54	65	59	.90
Prescott,	322	171,837	5	49	39	75	-	3	54	59	53	.90
Southampton,	927	494,574	8	167	131	173	3	6	120	151	129	.86
South Hadley,	5,054	2,529,372	24	769	564	946	12	83	608	844	779	.92
Ware,	8,594	4,398,210	30	1,548	1,096	1,177	3	108	805	1,066	1,002	.94
Westhampton,	466	226,267	5	105	78	98	-	3	78	80	75	.94
Williamsburg,	1,943	906,605	15	364	283	431	3	32	303	387	359	.93
Worthington,	614	313,879	8	111	87	138	-	17	97	116	108	.93
Totals,	62,227	$35,929,858	315	10,405	7,631	10,938	171	1,002	7,243	9,519	8,811	.93

HAMPSHIRE COUNTY — Continued.

TOWNS AND CITIES.	Teachers and Teachers' Wages.							Length of Schooling.		High Schools.				
	Number of teachers required by the public schools.		Number of teachers who have graduated from college.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Amherst,	2	21	6	1	7	$120 00	$43 20	160-4	8-18	1	6	165	9-10	$6,150 00
Belchertown,	3	28	3	–	2	57 00	30 00	156-5	8-4	1	2	84	9	1,965 71
Chesterfield,	1	6	–	1	2	36 00	33 85	58-10	8-7	–	–	–	–	–
Cummington,	–	8	–	–	1	–	36 00	67-1	8-8	–	–	–	–	–
Easthampton,	1	31	4	11	6	150 00	42 69	247-19	8-17	1	4	86	9-16	3,700 00
Enfield,	–	7	–	1	2	–	39 14	63	9	–	–	–	–	–
Goshen,	–	4	–	–	1	–	36 00	31-16	8	–	–	–	–	–
Granby,	–	7	2	1	2	–	39 32	54-13	9-2	1	2	32	9-14	1,306 46
Greenwich,	–	3	–	–	3	–	40 14	26-6	8-15	–	–	–	–	–
Hadley,	–	13	3	–	1	–	39 23	98	8-18	1*	3	39	9-16	2,191 65
Hatfield,	–	8	–	–	2	–	39 00	72	9	–	–	–	–	–
Huntington,	1	12	3	1	7	84 00	37 56	99	9	1	3	57	10	2,100 00
Middlefield,	–	6	–	–	2	–	36 64	48-12	8-2	–	–	–	–	–
Northampton,	6	90	13	4	34	124 00	47 21	712-3	9-12	1	13	336	9-11	13,528 26
Pelham,	–	4	–	–	3	–	36 00	35-10	8-17	–	–	–	–	–
Plainfield,	–	5	–	–	–	–	31 80	40	8	–	–	–	–	–
Prescott,	1	5	–	1	–	34 00	34 00	44-2	8-17	–	–	–	–	–
Southampton,	–	8	–	1	2	–	35 65	71	8-17	–	–	–	–	–
South Hadley,	1	27	4	1	9	120 00	43 29	220-19	9-4	1	4	85	9-13	3,697 84
Ware,	3	32	6	1	14	105 83	45 34	273-2	9-2	1	6	122	9-9	6,644 50
Westhampton,	–	5	–	2	3	–	34 40	42	8-8	–	–	–	–	–
Williamsburg,	2	14	2	1	3	57 00	33 28	137	9-3	2	1†	70	{ 10 / 10 }	2,082 72
Worthington,	2	8	1	–	3	42 00	35 36	67-8	8-16	–	–	–	–	–
Totals,	23	352	47	27	109	$91 06	$40 95	2,826-10	8-19	11	44	1,076	9-14	$43,367 14

* Hopkins Academy.

† Also 3 teachers on part time.

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Amherst,	$12,211 56	$752 41	$2,328 07	$167 00	$1,500 00	$1,272 24	$725 42	$18,956 70	$1,883 75	$17,072 95
Belchertown,	5,555 00	55 00	491 95	177 10	1,080 00	480 14	109 34	7,948 53	2,499 33	5,449 20
Chesterfield,	1,943 40	205 50	128 36	37 90	375 00	116 85	35 17	2,842 18	1,508 35	1,333 83
Cummington,	2,723 00	224 00	250 54	43 59	375 00	113 41	29 85	3,759 39	2,157 44	1,601 95
Easthampton,	15,191 74	642 25	2,834 88	112 35	1,259 12	967 31	325 25	21,332 90	1,381 82	19,951 08
Enfield,	2,845 90	410 16	450 67	110 00	420 00	410 16	10 00	4,656 89	1,783 54	2,873 35
Goshen,	1,478 45	27 75	57 34	13 00	187 50	71 41	3 00	1,838 45	1,493 95	344 50
Granby,	2,683 00	1,090 20	305 00	90 00	375 00	156 12	73 21	4,772 53	1,921 84	2,850 69
Greenwich,	1,694 40	346 65	105 41	42 00	238 14	121 67	11 31	2,559 58	1,379 58	1,180 00
Hadley,	5,324 70	658 38	1,076 96	73 78	660 00	517 43	223 02	8,534 27	3,287 73	5,246 54
Hatfield,	3,519 34	132 50	1,063 76	90 00	480 00	469 70	15 00	5,770 30	1,849 71	3,920 59
Huntington,	5,168 60	285 65	814 95	–	560 72	510 48	68 51	7,408 91	1,879 81	5,529 10
Middlefield,	1,781 00	145 40	116 25	–	276 74	146 51	55 57	2,521 47	1,865 60	655 87
Northampton,	51,744 39	747 25	11,789 11	690 75	2,000 00	6,262 80	1,659 81	74,894 11	2,761 22	72,132 89
Pelham,	1,511 40	88 00	68 00	–	300 00	51 86	55 06	2,074 32	1,706 53	367 79
Plainfield,	1,378 00	–	62 81	–	375 00	69 64	4 00	1,889 45	1,139 45	750 00
Prescott,	2,047 00	165 00	107 94	29 00	357 15	82 44	54 65	2,843 18	1,770 30	1,072 88
Southampton,	3,447 00	–	217 89	74 00	213 06	130 26	75	4,082 96	2,039 91	2,043 05
South Hadley,	12,683 50	532 25	3,029 91	120 00	1,125 00	1,297 11	899 94	19,687 71	1,918 83	17,768 88
Ware,	18,886 75	1,214 50	5,697 92	–	2,000 00	2,318 48	1,318 97	31,436 62	261 50	31,175 12
Westhampton,	2,273 92	–	109 54	86 25	150 98	104 78	6 00	2,731 47	1,292 80	1,438 67
Williamsburg,	5,400 55	406 60	922 31	216 00	750 00	530 78	175 33	8,401 57	3,063 51	5,338 06
Worthington,	2,487 20	52 60	198 10	87 60	375 00	204 34	44 18	3,449 02	1,836 45	1,612 57
Totals,	$163,979 80	$8,182 05	$32,227 67	$2,260 32	$15,433 41	$16,405 92	$5,903 34	$244,392 51	$42,682 95	$201,709 56

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Amherst,	–	$300 00	$527 30	$827 30	–	$827 30	$17,900 25	–	–	$513 20
Belchertown,	–	800 00	65 67	865 67	–	865 67	6,314 87	$6,000 00	$242 40	–
Chesterfield,	–	–	40 91	40 91	–	40 91	1,374 74	500 00	18 00	–
Cummington,	–	–	197 37	197 37	$108 62	88 75	1,690 70	–	–	108 62
Easthampton,	–	–	399 56	399 56	–	399 56	20,350 64	–	–	451 06
Enfield,	–	–	102 81	102 81	102 81	–	2,873 35	–	–	–
Goshen,	–	–	3 59	3 59	–	3 59	348 09	–	–	–
Granby,	–	–	62 07	62 07	–	62 07	2,912 76	–	–	–
Greenwich,	–	210 00	17 18	227 18	–	227 18	1,407 18	500 00	30 00	–
Hadley,	–	212 29	583 00	795 29	–	795 29	6,041 83	–	–	–
Hatfield,	–	–	167 78	167 78	–	167 78	4,088 37	–	–	159 98
Huntington,	–	150 00	465 28	615 28	–	615 28	6,144 38	–	–	87 32
Middlefield,	–	18 25	70 16	88 41	–	88 41	744 28	–	–	–
Northampton,	$61,206 00	180 00	1,833 61	63,219 61	–	63,219 61	135,352 50	3,000 00	105 91	1,384 86
Pelham,	–	–	180 36	180 36	–	180 36	548 15	–	–	61 38
Plainfield,	–	–	6 88	6 88	6 88	–	750 00	–	–	–
Prescott,	–	–	66 98	66 98	–	66 98	1,139 86	–	–	52 84
Southampton,	–	–	–	–	–	–	2,043 05	–	–	–
South Hadley,	–	374 21	786 00	1,160 21	–	1,160 21	18,929 09	–	–	389 43
Ware,	–	1,083 96	816 04	1,900 00	–	1,900 00	33,075 12	–	–	–
Westhampton,	–	–	12 73	12 73	–	12 73	1,451 40	–	–	–
Williamsburg,	–	371 13	300 19	671 32	127 92	543 40	5,881 46	15,000 00	646 63	188 35
Worthington,	–	–	174 36	174 36	–	174 36	1,786 93	–	–	290 45
Totals,	$61,206 00	$3,699 84	$6,879 83	$71,785 67	$346 23	$71,439 44	$273,149 00	$25,000 00	$1,042 94	$3,687 49

HAMPSHIRE COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Amherst,	–	–	–	–	1	15	–	$175 00	–	–
Belchertown,	$1,176 40	$10 00	–	–	–	–	–	–	–	–
Chesterfield,	1,157 29	–	–	–	–	–	–	–	–	–
Cummington,	1,100 84	–	–	–	–	–	–	–	–	–
Easthampton,	–	–	1	175	–	–	$13,000 00	–	$500,000 00	$13,800 00
Enfield,	957 29	–	–	–	–	–	–	–	–	–
Goshen,	1,013 20	–	–	–	–	–	–	–	–	–
Granby,	1,157 29	–	–	–	–	–	–	–	–	–
Greenwich,	1,100 84	–	–	–	1	27	–	–	–	–
Hadley,	807 29	–	–	–	–	–	–	–	100,000 00	5,000 00
Hatfield,	807 29	–	1	19	–	–	500 00	–	51,283 07	2,878 98
Huntington,	1,176 39	–	–	–	–	–	–	–	–	–
Middlefield,	1,025 84	–	–	–	–	–	–	–	–	–
Northampton,	–	390 00	1	144	4	805	2,093 75	19,600 00	394,137 94	15,237 27
Pelham,	1,025 83	–	–	–	–	–	–	–	–	–
Plainfield,	938 20	–	–	–	–	–	–	–	–	–
Prescott,	1,376 39	–	–	–	–	–	–	–	–	–

Southampton, . . .	1,157 30	–	–	–	–	–	–	–	–	–
South Hadley, . . .	951 39	–	–	–	–	–	–	–	–	–
Ware, ...	–	100 00	–	–	1	375	–	–	–	–
Westhampton, . . .	1,157 30	–	–	–	–	–	–	–	–	–
Williamsburg, . . .	1,176 39	–	–	–	–	–	–	–	–	–
Worthington, ...	1,025 83	–	–	–	–	–	–	–	–	–
Totals, ...	$20,288 59	$500 00	3	338	7	1,222	$15,593 75	$19,775 00	$1,045,421 01	$36,916 25

MIDDLESEX COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Acton,	2,089	$1,778,350	10	329	241	362	-	41	236	321	297	.93
Arlington,	9,668	10,136,110	43	1,810	1,293	1,861	-	191	1,232	1,662	1,536	.92
Ashby,	865	481,879	4	123	93	141	-	24	91	124	114	.92
Ashland,	1,597	1,047,194	9	256	194	291	2	42	178	299	285	.95
Ayer,	2,386	1,701,405	11	445	320	494	5	66	317	472	440	.93
Bedford,	1,208	1,233,550	4	193	125	166	-	7	127	144	135	.94
Belmont,	4,360	5,602,650	19	809	588	759	-	82	481	676	611	.90
Billerica,	2,843	2,226,175	16	508	373	566	1	42	390	494	447	.91
Boxborough,	324	244,805	4	51	39	51	-	-	39	48	45	.93
Burlington,	588	583,461	3	63	39	60	1	4	41	48	45	.94
Cambridge,	97,434	103,845,600	314	15,858	11,188	15,752	955	1,446	9,892	14,606	13,550	.93
Carlisle,	523	409,749	3	98	73	87	-	1	71	74	68	.92
Chelmsford,	4,254	3,036,025	23	755	548	819	7	58	553	718	642	.89
Concord,	5,421	5,530,400	19	870	622	1,111	-	231	648	1,000	934	.93
Dracut,	3,537	2,147,021	16	626	539	583	2	7	572	501	456	.91
Dunstable,	412	281,062	3	90	62	83	-	4	55	60	56	.93
Everett,	29,111	22,191,900	132	5,671	4,034	6,799	4	632	4,835	5,947	5,652	.95
Framingham,	11,548	9,373,687	49	1,877	1,344	2,235	19	215	1,454	2,030	1,835	.90
Groton,	2,253	2,941,244	11	345	233	402	3	64	249	354	323	.91
Holliston,	2,663	1,546,563	13	437	306	565	1	54	375	483	455	.94
Hopkinton,	2,585	1,641,245	13	407	324	481	5	38	323	428	407	.95
Hudson,	6,217	3,157,481	22	1,046	735	1,067	-	95	711	1,001	931	.93
Lexington,	4,530	5,957,670	20	836	646	920	2	114	563	848	775	.91
Lincoln,	1,122	2,506,719	5	133	93	122	1	6	83	106	98	.92
Littleton,	1,219	975,885	7	210	152	233	-	31	184	214	195	.91
Lowell,	94,889	71,632,643	267	14,658	10,909	12,338	684	978	7,953	10,502	9,644	.92

Malden,	38,037	32,324,800	141	7,246	4,639	6,962	5	794	4,584	6,232	5,790	.93
Marlborough,	14,073	9,725,523	64	2,896	2,008	2,530	25	222	2,008	2,278	2,096	.92
Maynard,	5,811	3,558,233	18	745	561	829	1	57	577	747	695	.93
Medford,	19,686	21,240,150	84	3,737	2,651	4,383	105	433	2,767	3,929	3,537	.90
Melrose,	14,295	15,329,695	67	2,706	1,987	3,086	49	460	1,904	2,894	2,740	.95
Natick,	9,609	6,673,225	41	1,625	1,167	1,815	-	262	1,136	1,728	1,623	.94
Newton,	36,827	64,635,370	153	6,273	4,152	6,682	319	952	3,895	5,978	5,320	.89
North Reading,	903	679,926	4	138	98	148	1	7	101	139	124	.90
Pepperell,	3,268	2,216,550	18	593	422	760	11	100	501	655	584	.89
Reading,	5,682	4,683,592	23	972	698	1,168	7	193	694	1,105	1,014	.92
Sherborn,	1,379	967,710	8	220	145	211	3	3	156	192	176	.92
Shirley,	1,692	929,672	7	289	208	290	4	12	209	253	236	.93
Somerville,	69,272	59,146,600	240	11,969	8,395	12,047	263	1,466	7,474	11,385	10,722	.94
Stoneham,	6,332	4,897,349	25	1,061	740	1,208	3	200	751	1,091	1,024	.94
Stow,	1,027	826,747	6	175	159	198	1	16	134	172	160	.93
Sudbury,	1,159	1,214,410	7	160	115	190	2	20	112	174	158	.91
Tewksbury,	4,415	1,789,125	14	572	414	490	7	9	414	439	402	.92
Townsend,	1,772	1,197,860	9	268	185	305	-	51	197	276	258	.93
Tyngsborough,	768	481,955	5	135	102	130	1	6	102	117	106	.90
Wakefield,	10,268	8,291,289	49	1,937	1,419	2,390	12	287	1,444	2,067	1,953	.94
Waltham,	26,282	23,000,660	73	3,876	2,631	3,291	14	411	2,012	3,070	2,860	.93
Watertown,	11,258	12,378,135	34	1,772	1,488	1,665	7	223	1,042	1,488	1,379	.93
Wayland,	2,220	2,016,112	13	373	246	416	2	74	296	380	348	.92
Westford,	2,413	1,633,154	16	420	342	449	-	32	326	397	354	.89
Weston,	2,091	5,556,452	7	275	231	280	1	37	179	254	241	.95
Wilmington,	1,670	1,223,302	12	350	253	415	6	42	266	375	347	.93
Winchester,	8,242	10,596,900	36	1,539	1,104	1,831	89	217	1,112	1,659	1,537	.93
Woburn,	14,402	10,753,020	59	3,388	2,120	3,146	19	295	1,761	2,816	2,622	.93
Totals,	608,499	$570,177,989	2,273	104,214	73,793	105,663	2,649	11,354	67,807	95,450	88,382	.93

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Acton,	1	11	2	-	2	$103 20	$45 60	91	9-1	1	2	34	10	$1,961 12
Arlington,	2	53	7	1	24	180 00	63 08	410-13	9-11	1	10	283	9-12	12,616 27
Ashby,	1	4	2	-	2	70 00	42 00	33-12	8-8	1	2	23	9-13	1,483 27
Ashland,	2	9	3	-	5	72 50	41 66	79-12	8-17	1	2	47	9-13	2,400 00
Ayer,	1	12	3	1	6	120 00	43 83	102-8	9-8	1	3	88	9-13	3,073 88
Bedford,	-	4	-	-	3	-	49 15	32-16	8-4	-	-	-	-	-
Belmont,	1	22	4	1	8	170 00	57 01	173-16	9-4	1	5	91	9-4	5,046 00
Billerica,	2	16	3	1	3	90 00	40 56	141-2	8-16	1*	3	57	9-3	2,800 00
Boxborough,	-	4	-	-	3	-	40 00	36	9	-	-	-	-	-
Burlington,	-	3	-	-	1	-	42 64	27-1	9	-	-	-	-	-
Cambridge,	47	400	50	22	232	157 00	70 16	3,140	10	3	70	1,576	10 10 10	107,175 28
Carlisle,	-	3	-	-	-	-	40 00	26-1	8-17	-	-	-	-	-
Chelmsford,	2	25	5	-	14	92 50	43 04	200-2	8-14	2	4	55	9-14 9-14	3,250 00
Concord,	5	28	11	2	9	116 00	60 06	175-18	9-5	1	11	314	9-10	14,010 00
Dracut,	-	17	-	-	10	-	45 18	145-13	9-2	-	-	-	-	-
Dunstable,	-	3	-	-	3	-	40 34	26-4	8-14	-	-	-	-	-
Everett,	11	169	10	2	88	145 50	56 91	1,214-8	9-4	1	17	499	9-7	18,848 88
Framingham,	6	55	7	1	37	116 23	53 92	437-10	8-18	1	9	256	9-9	12,620 00
Groton,	1	13	3	-	3	155 00	43 00	98-4	8-18	1	3	72	9-5	3,200 00
Holliston,	1	14	3	-	7	103 09	45 25	113-17	8-15	1	3	45	9-14	2,357 07
Hopkinton,	-	15	1	-	4	-	47 00	115-14	8-15	1	3	51	9-14	2,700 00
Hudson,	3	23	4	2	7	106 66	44 74	182-6	8-5	1	5	114	9-14	6,407 00
Lexington,	2	23	5	3	7	140 00	57 61	182-6	9-2	1	4	110	9-5	8,354 96
Lincoln,	-	5	-	-	1	-	54 21	45-16	9-3	-	-	-	-	-

Littleton,	1	8	3	2	4	100 00	46 00	64	9-3	1	3	39	10	2,117	47
Lowell,	22	302	24	13	89	183 00	61 15	2,469-15	9-5	1	35	962	9 4	52,836	39
Malden,	18	171	16	8	93	166 98	70 55	1,239-11	8-16	1	28	739	9-3	34,592	71
Marlborough,	5	64	6	-	12	102 00	60 11	623-4	9-8	1	11	325	9-16	12,698	00
Maynard,	2	20	5	-	14	90 00	50 00	170-19	9-12	1	5	51	9-14	3,875	00
Medford,	16	91	15	10	28	131 14	61 13	793-6	9-9	1	18	510	9 11	23,732	08
Melrose,	8	88	14	8	42	127 08	55 00	616-8	9-4	1	16	435	9 4	19,905	82
Natick,	5	47	9	3	24	122 10	55 06	369-1	9	1	10	298	9-12	4,605	57
Newton,	20	199	30	13	133	202 50	66 22	1,423	9-5	1	33	923	9-4	52,029	92
North Reading,	-	4	-	-	3	-	48 00	35-15	8-19	1	1	16	8-19	503	33
Pepperell,	1	21	4	-	8	110 00	41 20	150	8-16	1	4	127	9-8	3,278	00
Reading,	2	31	10	-	18	132 50	53 95	209-5	9-1	1	10	257	9-2	10,680	85
Sherborn,	-	6	2	1	4	-	41 33	69-4	8-13	1†	2	10	8-15	846	84
Shirley,	-	9	1	1	4	-	39 11	69-1	9-17	1	1	20	9-17	1,188	08
Somerville,	27	287	34	8	111	178 15	70 45	2,209	9-4	2	47	1,297	9-4 9-4	68,591	00
Stoneham,	1	28	5	1	8	175 00	50 91	230-5	9-4	1	5	138	9-6	6,400	00
Stow,	1	6	1	2	3	84 00	40 00	54-10	9-1	1	1	23	9-10	1,163	65
Sudbury,	1	7	2	-	3	75 00	43 71	61-3	8-14	1	2	21	9-17	1,402	68
Tewksbury,	-	14	-	-	12	-	45 32	130-17	9-7	-	-	-	-	-	
Townsend,	1	10	3	-	4	80 00	37 60	78-4	8-14	1	3	58	9-11	2,316	20
Tyngsborough,	-	5	-	-	4	-	43 80	46	9-4	-	-	-	-	-	
Wakefield,	8	55	6	2	20	87 81	49 14	458-8	9-7	1	12	300	9-14	12,195	24
Waltham,	9	89	12	3	43	150 00	62 52	688-16	9-9	1	16	417	9-7	24,202	00
Watertown,	4	40	7	2	17	152 40	63 07	317-8	9-7	1	7	190	9-9	8.657	00
Wayland,	2	13	3	-	12	103 64	42 34	123-1	9-8	1	3	77	9-13	2,925	74
Westford,	2	15	2	-	13	92 82	44 41	144-15	9-5	1‡	2	28	9-15	1,958	33
Weston,	1	9	3	-	5	200 00	61 56	63-12	9-1	1	3	51	9-10	4,730	00
Wilmington,	1	12	2	-	3	90 00	41 67	108-2	9-1	1	2	46	9-13	1,741	50
Winchester,	4	46	6	2	20	152 50	60 06	343-17	9-11	1	8	219	10	11,770	00
Woburn,	5	67	8	2	13	126 00	54 35	544-17	9-4	1	11	311	9-6	11,952	91
Totals,	255	2,695	356	117	1,246	$147 17	$60 99	21,137-3	9-6	49	455	11,603	9-8	$591,200	04

* Howe Academy. † United with Sawin Academy. ‡ Westford Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Acton,	$5,480 50	$1,333 50	$1,016 95	$99 00	$480 00	$502 93	$321 35	$9,234 23	$1,411 40	$7,822 83
Arlington,	37,658 78	-	7,992 61	50 00	1,760 00	4,865 56	1,646 31	53,973 26	1,116 34	52,856 92
Ashby,	2,391 00	1,513 95	476 08	-	496 00	338 63	37 39	5,253 05	2,080 18	3,172 87
Ashland,	5,387 15	936 00	1,322 53	70 00	600 00	597 15	244 64	9,157 47	2,056 47	7,101 00
Ayer,	7,045 25	-	1,086 05	-	816 68	1,036 99	362 10	10,347 07	1,896 55	8,450 52
Bedford,	4,086 38	939 00	812 91	-	450 00	231 04	119 07	6,638 40	1,822 24	4,816 16
Belmont,	15,790 00	640 00	4,092 48	17 35	1,500 00	1,281 71	648 16	23,969 70	304 31	23,665 39
Billerica,	6,696 69	914 70	2,360 56	180 00	825 00	605 90	282 75	11,865 60	1,332 45	10,533 15
Boxborough,	1,527 00	-	360 20	25 00	300 00	72 77	17 50	2,302 47	1,696 15	606 32
Burlington,	1,479 00	728 75	411 56	60 00	270 00	72 22	9 60	3,031 13	1,061 10	1,970 03
Cambridge,	364,710 39	368 00	72,791 63	8,089 00	4,800 00	22,283 97	3,546 37	476,589 36	7,332 01	469,257 35
Carlisle,	1,574 00	540 00	95 36	-	225 00	93 40	4 85	2,532 61	1,201 70	1,330 91
Chelmsford,	11,848 00	858 50	3,493 77	267 00	1,125 00	1,099 85	209 85	18,901 97	1,041 50	17,860 47
Concord,	23,142 50	3,270 50	3,678 71	215 00	700 00	2,496 20	3,393 35	36,896 26	7,105 95	29,790 31
Dracut,	10,558 16	843 96	2,195 18	50 00	800 00	1,044 48	518 24	16,010 02	2,612 06	13,397 96
Dunstable,	1,206 00	966 00	368 24	-	150 00	99 94	31 99	2,822 17	1,492 00	1,330 17
Everett,	108,587 05	-	22,059 32	1,070 00	2,500 00	11,420 05	4,992 75	150 629 17	-	150,629 17
Framingham,	35,419 70	1,814 45	7,122 95	123 30	2,000 00	2,919 74	1,263 30	50,663 44	605 04	50,058 40
Groton,	7,045 00	827 00	1,110 09	15 00	750 00	567 52	809 16	11,123 77	98 84	11,024 93
Holliston,	7,000 88	1,229 00	1,469 48	13 80	620 00	623 90	136 66	11,093 72	1,821 92	9,271 80
Hopkinton,	7,116 00	876 05	1,627 46	16 00	900 00	726 03	210 03	11,471 57	1,857 23	9,614 34
Hudson,	13,717 72	765 00	4,077 97	133 16	1,000 00	1,940 16	321 33	21,955 34	107 76	21,847 58
Lexington,	18,230 45	2,922 25	5,633 97	72 35	400 00	2,077 26	522 28	29,858 56	653 00	29,205 56
Lincoln,	4,273 36	2,331 50	838 90	-	450 00	180 01	90 44	8,164 21	965 71	7,198 50
Littleton,	4,515 00	1,308 00	908 86	-	330 00	571 36	54 55	7,687 77	1,793 98	5,893 79
Lowell,	242,509 12	150 00	72,907 36	5,363 75	3,000 00	15,132 92	6,957 82	346,020 97	6,799 76	339,221 21

Malden,	136,907 13	153 06	22,359 20	2,111 40	2,540 00	6,548 92	15,517 07	186,136 78	374 49	185,762 29
Marlborough,	39,157 39	1,259 54	7,193 50	750 00	2,100 00	3,236 08	1,227 23	54,923 74	244 61	54,679 13
Maynard,	11,330 47	388 00	2,207 60	5 00	750 00	2,209 44	873 47	17,763 98	625 00	17,138 98
Medford,	79,858 27	-	16,327 85	1,850 00	2,800 00	6,499 78	3,760 05	111,095 95	172 00	110,923 95
Melrose,	62,916 16	564 00	12,751 33	400 00	2,300 00	5,720 04	2,307 67	86,959 20	-	86,959 20
Natick,	31,396 16	69 40	6,353 01	63 00	2,000 00	2,636 67	1,801 47	44,319 71	484 50	43,835 21
Newton,	169,624 26	1,611 50	32,155 43	2,940 00	3,916 70	15,409 79	6,933 21	232,590 89	-	232,590 89
North Reading,	3,176 00	925 60	388 32	75 00	200 00	202 84	226 28	5,194 04	2,162 30	3,031 74
Pepperell,	9,576 00	1,134 00	2,614 36	-	750 00	750 13	643 60	15,468 09	1,408 99	14,059 10
Reading,	20,859 29	664 00	4,246 09	30 00	1,200 00	3,008 15	3,048 71	33,056 24	1,057 26	31,998 98
Sherborn,	2,471 25	1,227 00	700 36	28 51	300 00	286 41	144 48	5,158 01	1,287 98	3,870 03
Shirley,	3,899 32	766 60	862 55	82 80	457 14	435 87	181 52	6,685 80	2,072 74	4,613 06
Somerville,	254,697 00	-	41,943 00	1,900 00	3,000 00	15,537 00	4,600 00	321,677 00	-	321,677 00
Stoneham,	17,504 33	352 75	4,530 23	143 83	940 00	1,795 56	1,280 75	26,547 45	191 70	26,355 75
Stow,	3,198 13	1,075 35	687 97	100 00	450 00	315 44	94 80	5,921 69	1,987 44	3,934 25
Sudbury,	3,814 50	1,526 10	624 45	121 25	450 00	525 93	276 18	7,338 41	2,000 40	5,338 01
Tewksbury,	10,144 10	973 50	1,872 32	174 00	800 00	621 83	297 32	14,883 07	2,369 74	12,513 33
Townsend,	4,837 50	1,837 10	880 00	2 50	870 00	318 72	123 82	8,869 64	2,097 85	6,771 79
Tyngsborough,	2,847 36	1,433 50	634 78	15 00	199 92	251 76	236 08	5,618 40	2,741 76	2,876 64
Wakefield,	38,305 00	-	7,813 22	-	1,717 50	3,205 31	1,436 60	52,477 63	1,731 69	50,745 94
Waltham,	72,166 30	852 85	16,459 77	900 00	2,200 00	5,527 63	1,260 74	99,367 29	191 80	99,175 49
Watertown,	33,974 95	390 83	5,804 33	100 00	1,950 00	2,691 95	1,501 29	46,413 35	-	46,413 35
Wayland,	7,288 41	1,502 18	1,873 65	195 00	750 00	788 22	381 07	12,778 53	1,910 46	10,868 07
Westford,	7,790 13	639 00	1,167 26	10 00	800 00	533 43	153 63	11,093 45	1,501 49	9,591 96
Weston,	8,589 58	3,906 75	2,005 28	450 00	100 00	785 00	694 00	16,530 61	-	16,530 61
Wilmington,	5,648 00	54 00	1,605 31	-	630 00	751 15	238 11	8,926 57	1,723 99	7,202 58
Winchester,	33,138 33	815 00	8,323 80	200 00	2,000 00	3,499 75	2,350 74	50,327 62	232 95	50,094 67
Woburn,	43,065 15	150 00	8,592 27	400 00	1,837 50	3,501 54	1,237 63	58,784 09	613 00	58,171 09
Totals,	$2,067,175 55	$50,347 72	$433,288 42	$28,977 00	$65,256 44	$160,476 03	$79,579 36	$2,885,100 52	$79,449 79	$2,805,650 73

MIDDLESEX COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Acton,	–	$585 14	$255 05	$840 19	–	$840 19	$8,663 02	–	–	$320 92
Arlington,	–	961 76	1,881 83	2,843 59	–	2,843 59	55,700 51	$38,521 59	$1,532 57	–
Ashby,	–	–	44 31	44 31	–	44 31	3,217 18	637 00	22 49	208 05
Ashland,	–	509 01	–	509 01	–	509 01	7,610 01	–	–	587 80
Ayer,	–	–	387 03	387 03	–	387 03	8,837 55	–	–	265 55
Bedford,	–	2,245 37	226 18	2,471 55	–	2,471 55	7,287 71	–	–	–
Belmont,	$16,754 19	675 00	358 19	17,787 38	–	17,787 38	41,452 77	–	–	–
Billerica,	–	–	678 00	678 00	–	678 00	11,211 15	–	–	466 99
Boxborough,	–	–	50 00	50 00	–	50 00	656 32	–	–	–
Burlington,	–	–	21 55	21 55	–	21 55	1,991 58	–	–	144 38
Cambridge,	87,815 26	41,605 36	15,190 42	144,611 04	–	144,611 04	613,868 39	–	–	–
Carlisle,	–	–	6 25	6 25	$2 15	4 10	1,335 01	500 00	20 20	–
Chelmsford,	–	467 75	1,051 28	1,519 03	–	1,519 03	19,379 50	–	–	648 04
Concord,	–	2,812 50	646 87	3,459 37	–	3,459 37	33,249 68	26,300 00	1,227 20	–
Dracut,	–	177 90	588 64	766 54	–	766 54	14,164 50	3,000 00	109 72	862 23
Dunstable,	–	–	79 19	79 19	–	79 19	1,409 36	–	–	–
Everett,	38,921 80	6,942 07	5,899 86	51,763 73	–	51,763 73	202,392 90	–	–	–
Framingham,	20,000 00	2,700 00	2,883 94	25,583 94	–	25,583 94	75,642 34	1,259 00	75 54	1,240 32
Groton,	–	–	–	–	–	–	11,024 93	–	–	–
Holliston,	–	–	165 06	165 06	–	165 06	9,436 86	–	–	–
Hopkinton,	–	120 46	34 44	154 90	12 94	141 96	9,756 30	5,836 00	233 44	402 13
Hudson,	–	–	1,027 73	1,027 73	–	1,027 73	22,875 31	–	–	338 29
Lexington,	1,713 19	136 62	471 16	2,320 97	–	2,320 97	31,526 53	500 00	20 00	–
Lincoln,	–	–	477 68	477 68	–	477 68	7,676 18	1,209 21	46 48	–
Littleton,	–	177 57	491 84	669 41	–	669 41	6,563 20	3,500 00	210 00	316 40
Lowell,	30,816 14	39,366 00	36,574 98	106,757 12	–	106,757 12	445,978 33	–	–	–

Malden,	3,300 00	8,000 00	6,225 13	17,525 13	–	17,525 13	203,287 42	–	–	–
Marlborough,	–	–	2,594 13	2,594 13	–	2,594 13	57,273 26	5,600 75	270 44	–
Maynard,	–	–	1,312 97	1,312 97	–	1,312 97	18,451 95	–	–	–
Medford,	28,000 00	861 03	3,237 88	32,098 91	–	32,098 91	143,022 86	–	–	–
Melrose,	–	761 25	2,612 55	3,373 80	–	3,373 80	90,333 00	–	–	–
Natick,	–	–	1,514 89	1,514 89	–	1,514 89	45,350 10	–	–	–
Newton,	83,000 00	–	9,917 81	92,917 81	–	92,917 81	325,508 70	–	–	3,460 85
North Reading,	–	–	70 98	70 98	–	70 98	3,102 72	–	–	197 49
Pepperell,	–	152 15	368 48	520 63	–	520 63	14,579 73	–	–	–
Reading,	8,000 00	–	–	8,000 00	–	8,000 00	39,998 98	–	–	–
Sherborn,	–	350 00	126 09	476 09	–	476 09	4,346 12	–	–	157 98
Shirley,	–	–	–	–	–	–	4,613 06	11,040 57	411 71	–
Somerville,	51,987 00	–	8,306 00	60,293 00	–	60,293 00	381,970 00	–	–	–
Stoneham,	–	194 65	637 10	831 75	–	831 75	27,187 50	–	–	–
Stow,	–	–	84 15	84 15	–	84 15	4,018 40	12,000 00	553 50	143 82
Sudbury,	–	379 85	725 05	1,104 90	–	1,104 90	6,442 91	3,453 00	46 04	254 36
Tewksbury,	–	172 77	124 49	297 26	–	297 26	12,810 59	–	–	–
Townsend,	–	–	90 42	90 42	–	90 42	6,862 21	–	–	–
Tyngsborough,	–	–	174 06	174 06	–	174 06	3,050 70	2,279 16	115 11	–
Wakefield,	–	872 85	1,487 50	2,360 35	–	2,360 35	53,106 29	–	–	–
Waltham,	20,072 36	–	2,956 53	23,028 89	–	23,028 89	122,204 38	–	–	–
Watertown,	–	–	2,074 02	2,074 02	–	2,074 02	48,487 37	–	–	–
Wayland,	–	–	83 28	83 28	–	83 28	10,951 35	–	–	175 41
Westford,	–	380 61	301 50	682 11	–	682 11	10,274 07	–	–	–
Weston,	–	–	465 00	465 00	–	465 00	16,995 61	–	–	–
Wilmington,	3,317 20	–	415 06	3,732 26	–	3,732 26	10,934 84	–	–	276 45
Winchester,	–	15,997 13	1,847 81	17,844 94	–	17,844 94	67,939 61	–	–	–
Woburn,	43 82	4,077 15	3,619 08	7,740 05	–	7,740 05	65,911 14	–	–	–
Totals,	$393,740 96	$131,681 95	$120,863 44	$646,286 35	$15 09	$646,271 26	$3,451,921 99	$115,636 28	$4,894 44	$10,467 46

MIDDLESEX COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools				Estimated Amount of Tuition paid in—		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Acton,	$1,026 40	–	–	–	–	–	–	–	–	–
Arlington,	–	$200 00	–	–	–	–	–	–	–	–
Ashby,	1,376 40	35 00	–	–	–	–	–	–	–	–
Ashland,	1,026 40	–	–	–	–	–	–	–	–	–
Ayer,	807 29	–	–	–	–	–	–	–	–	–
Bedford,	807 29	–	–	–	–	–	–	–	–	–
Belmont,	–	–	1	26	–	–	$150 00	–	$11,000 00	–
Billerica,	732 29	–	1*	57	–	–	14,400 00	–	40,140 00	$1,633 87
Boxborough,	1,025 84	–	–	–	–	–	–	–	–	–
Burlington,	957 29	–	–	–	–	–	–	–	–	–
Cambridge,	–	–	–	–	17	4,100	–	$39,630 00	–	–
Carlisle,	1,025 84	–	–	–	–	–	–	–	–	–
Chelmsford,	–	43 20	–	–	–	–	–	–	–	–
Concord,	–	–	–	–	3	132	–	25,700 00	8,000 00	420 00
Dracut,	951 39	125 00	–	–	–	–	–	–	–	–
Dunstable,	1,376 39	–	–	–	–	–	–	–	–	–
Everett,	–	–	–	–	–	–	–	–	–	–
Framingham,	–	–	–	–	1	48	–	–	–	–
Groton,	–	–	2	185	1	17	128,840 00	3,500 00	75,000 00	3,000 00
Holliston,	807 29	–	–	–	–	–	–	–	–	–
Hopkinton,	807 29	–	–	–	–	–	–	–	–	–
Hudson,	–	10 00	–	–	1	38	–	1,200 00	3,000 00	–
Lexington,	–	548 50	–	–	–	–	–	–	–	–
Lincoln,	732 29	–	–	–	–	–	–	–	–	–
Littleton,	1,176 39	–	–	–	–	–	–	–	–	–
Lowell,	–	–	2	189	9	5,075	15,000 00	–	140,000 00	5,000 00

Malden,	–	544 00	–	–	1	1,310	–	–	125,000 00	–
Marlborough,	–	–	1	256	1	247	5,000 00	1,000 00	65,000 00	–
Maynard,	–	–	–	–	–	–	–	–	–	–
Medford,	–	209 00	–	–	3	25	–	1,000 00	–	–
Melrose,	–	–	–	–	1	21	–	–	–	–
Natick,	–	–	–	–	1	67	–	10,000 00	60,000 00	–
Newton,	–	–	3	288	11	547	34,770 00	50,510 00	–	–
North Reading,	957 30	–	–	–	–	–	–	–	–	–
Pepperell,	951 39	–	–	–	–	–	–	–	–	–
Reading,	–	–	–	–	1	15	–	600 00	–	–
Sherborn,	957 30	–	–	–	–	–	–	–	15,633 10	1,626 87
Shirley,	957 30	–	–	–	–	–	–	–	–	–
Somerville,	–	2,800 00	–	–	2	1,815	–	–	–	–
Stoneham,	–	–	–	–	–	–	–	–	–	–
Stow,	1,176 39	–	–	–	–	–	–	–	–	–
Sudbury,	1,026 39	–	–	–	–	–	–	–	–	–
Tewksbury,	807 30	220 00	–	–	–	–	–	–	–	–
Townsend,	807 30	–	–	–	–	–	–	–	–	–
Tyngsborough,	1,376 39	5 00	–	–	–	–	–	–	–	–
Wakefield,	–	30 00	–	–	–	–	–	–	–	–
Waltham,	–	–	1	56	3	1,215	3,000 00	–	105,000 00	280 00
Watertown,	–	–	–	–	2	600	–	–	–	–
Wayland,	1,026 39	300 00	–	–	–	–	–	–	–	–
Westford,	1,026 39	–	–	–	–	–	–	–	–	–
Weston,	–	–	–	–	–	–	–	–	–	–
Wilmington,	807 30	–	–	–	–	–	–	–	–	–
Winchester,	–	1,000 00	–	–	–	–	–	–	–	–
Woburn,	–	–	–	–	1	317	–	–	–	–
Totals,	$26,513 22	$6,069 70	11	1,057	59	15,589	$201,160 00	$133,140 00	$647,773 10	$11,960 74

* United with high school.

NANTUCKET COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Nantucket, . . .	2,930	$3,283,002	11	412	304	482	–	47	296	443	409	.92

NORFOLK COUNTY.

Avon, ...	1,901	$908,658	8	319	228	394	–	38	251	345	323	.94
Bellingham, . . .	1,686	789,710	9	309	214	280	–	8	212	253	234	.92
Braintree, . . .	6,879	4,981,571	31	1,190	830	1,387	105	111	835	1,289	1,149	.89
Brookline, . . .	23,436	90,852,400	96	3,486	2,465	4,194	409	539	2,347	3,686	3,401	.92
Canton, ...	4,702	3,887,640	18	815	663	652	8	67	401	570	523	.92
Cohasset, . . .	2,727	6,575,535	12	403	287	476	17	55	285	432	388	.90
Dedham, . . .	7,774	11,127,534	41	1,368	970	1,664	171	164	960	1,530	1,423	.93
Dover, ...	636	1,004,234	6	126	91	118	–	9	90	106	95	.90
Foxborough, . . .	3,364	2,114,130	16	516	422	671	–	69	461	526	491	.93
Franklin, . . .	5,244	3,579,245	22	980	723	1,014	4	97	701	914	828	.91
Holbrook, . . .	2,509	1,280,553	12	434	323	558	8	27	523	470	434	.92
Hyde Park, . . .	14,510	12,882,270	49	2,697	1,879	2,279	–	315	1,268	1,933	1,822	.94
Medfield, . . .	3,314	1,535,150	7	244	169	257	5	19	170	232	209	.90
Medway, . . .	2,650	1,358,010	12	411	290	476	4	46	318	407	367	.90
Millis, ...	1,252	718,945	7	241	168	255	3	34	173	232	210	.91
Milton, ...	7,054	21,762,932	53	1,313	1,061	1,559	132	220	888	1,385	1,257	.91
Needham, . . .	4,284	4,503,731	22	836	578	830	8	88	531	791	736	.93
Norfolk, ...	1,089	708,526	5	135	97	152	2	15	91	139	129	.93

Norwood,	6,731	5,421,670	33	1,370	908	1,453	13	143	973	1,392	1,300	.93
Plainville,	1,300	701,567	8	191	140	247	-	27	134	192	171	.90
Quincy,	28,076	25,575,960	115	6,286	4,998	6,041	1	390	4,087	5,518	5,132	.93
Randolph,	4,034	2,012,475	16	662	469	699	6	52	447	610	582	.95
Sharon,	2,085	2,026,622	11	344	262	338	5	30	245	303	273	.90
Stoughton,	5,959	3,298,361	21	985	713	896	8	63	613	802	746	.93
Walpole,	4,003	3,686,280	20	747	530	769	2	91	490	729	669	.92
Wellesley,	6,189	11,924,139	24	788	565	899	24	121	553	827	766	.93
Westwood,	1,136	2,294,908	6	208	153	187	1	4	139	176	162	.92
Weymouth,	11,585	6,958,469	53	2,014	1,457	2,290	19	213	1,428	2,120	1,974	.93
Wrentham,	1,428	1,029,321	8	204	140	232	-	27	165	192	176	.92
Totals,	167,537	$235,500,546	741	29,622	21,793	31,267	955	3,082	19,779	28,101	25,970	.92

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Nantucket, . .	1	13	1	–	2	$120 00	$36 53	108	9-16	1	4	80	10	$2,753 11

NORFOLK COUNTY — CONTINUED.

Avon, . . .	1	8	2	–	6	$90 00	$40 25	75-5	9-8	1	2	54	9-8	$1,608 00
Bellingham, . .	–	9	–	–	3	–	42 00	81	9	–	–	–	–	–
Braintree, . .	2	36	5	1	12	102 00	52 59	300-13	9-8	1	6	156	9-14	5,680 00
Brookline, . .	15	149	15	3	59	199 67	80 87	906-19	9-7	1	22	470	9-7	37,579 68
Canton, . . .	2	19	3	–	6	107 00	52 21	180	10	1	3	69	10	3,232 00
Cohasset, . .	1	14	4	1	5	150 00	52 57	120	10	1	4	82	10	4,577 36
Dedham, . .	5	49	6	2	36	146 00	59 12	397-14	9-9	1	8	194	9-10	10,889 87
Dover, . . .	–	6	1	1	2	–	49 20	55-1	9-3	1	1	11	9-13	958 36
Foxborough, . .	1	17	2	2	5	138 95	46 45	145	9	1	3	73	9-10	3,996 00
Franklin, . .	2	24	7	–	12	63 00	44 66	195-11	8-17	1	5	99	9-14	4,500 00
Holbrook, . .	1	13	2	–	3	114 00	48 60	108-12	9-1	1	2	58	9-1	2,185 00
Hyde Park, . .	8	44	10	3	9	137 25	48 50	490	10	1	14	406	10	14,706 00
Medfield, . .	1	7	2	–	5	80 00	46 07	65-10	9-7	1	2	20	9-14	2,134 82
Medway, . .	1	13	3	–	7	103 69	41 14	104-18	8-14	1	3	53	9-13	2,640 00
Millis, . . .	–	8	2	–	4	–	41 25	61-1	8-14	1	2	39	9-12	1,300 00
Milton, . . .	5	54	6	–	35	168 47	62 35	484-19	9-3	1	9	188	9-5	15,600 00
Needham, . .	2	26	5	1	8	110 00	49 42	207-1	9-8	1	5	104	9-18	5,332 10
Norfolk, . . .	1	4	–	–	2	60 00	44 50	43-13	8-14	1	1	23	9-10	893 64

Norwood,	2	40	7	1	8	118 25	61 20	302-10	9-6	1	7	149	9-11	7,928 21
Plainville,	1	9	3	-	7	100 00	40 33	76-2	9-10	1	3	45	10	2,248 62
Quincy,	16	127	14	1	52	120 98	49 95	1,066-15	9-4	1	21	675	9-13	21,894 27
Randolph,	3	15	3	-	5	119 29	46 80	147-2	9-4	1	3	99	9-1	3,121 00
Sharon,	1	12	3	-	6	110 00	50 00	108-9	9-17	1	3	60	9-17	2,473 75
Stoughton,	1	25	3	1	6	150 00	47 00	186-8	8-17	1	4	75	9-16	3,900 00
Walpole,	3	21	4	-	13	100 00	50 00	193	9-13	1	5	103	9-15	5,795 69
Wellesley,	1	38	6	4	17	210 00	57 50	210-6	8-15	1	5	119	9-12	8,481 92
Westwood,	1	5	-	-	4	73 00	49 78	56-12	9-8	-	-	-	-	-
Weymouth,	7	53	7	6	24	89 29	48 95	500-11	9-9	1	8	245	9-12	9,413 00
Wrentham,	1	9	3	-	3	100 00	39 66	75-10	9-8	1	3	41	10	1,896 25
Totals,	85	854	128	27	364	$133 69	$56 53	6,946-2	9-7	27	154	3,710	9-13	$184,965 54

NANTUCKET COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Nantucket, . .	$6,353 25	–	$1,157 21	$125 00	–	$681 67	$380 28	$8,697 41	–	$8,697 41

NORFOLK COUNTY — Continued.

Avon, . . .	$4,566 15	–	$1,268 50	–	$400 00	$672 64	$329 35	$7,236 64	$1,686 25	$5,550 39
Bellingham, . .	3,278 00	$1,079 25	1,149 98	–	616 66	441 57	195 94	6,761 40	1,746 28	5,015 12
Braintree, . .	20,449 00	1,194 12	4,691 09	$36 00	1,500 00	1,762 86	522 01	30,155 08	414 20	29,740 88
Brookline, . .	134,670 64	1,869 75	29,425 78	3,000 00	4,000 00	13,098 30	6,517 38	192,581 85	–	192,581 85
Canton, . .	12,710 00	102 50	2,558 11	25 00	1,000 00	1,763 86	–	18,159 47	167 50	17,991 97
Cohasset, . .	9,536 00	2,866 50	2,193 38	115 00	750 00	1,260 89	311 05	17,032 82	127 63	16,905 19
Dedham, . .	37,351 23	591 77	7,189 34	100 00	2,200 00	3,046 98	616 04	51,095 36	1,416 39	49,678 97
Dover, . . .	3,629 58	1,043 09	606 74	–	300 00	188 66	95 98	5,864 05	1,480 40	4,383 65
Foxborough, .	8,916 78	1,084 00	2,847 48	175 00	900 00	733 10	548 94	15,205 30	2,015 89	13,189 41
Franklin, . .	12,771 77	2,815 63	4,031 66	4 75	1,088 92	1,488 52	714 11	22,915 36	672 50	22,242 86
Holbrook, . .	6,103 25	–	863 94	150 00	500 00	792 33	776 02	9,185 54	1,614 59	7,570 95
Hyde Park, . .	34,571 43	–	7,891 09	175 00	2,500 00	4,058 29	3,214 11	52,409 92	–	52,409 92
Medfield, . .	4,650 31	441 17	1,039 14	111 50	600 00	592 86	170 57	7,605 55	1,605 55	6,000 00
Medway, . .	6,022 50	830 00	1,019 37	75 00	680 00	1,023 09	296 51	9,946 47	2,507 77	7,438 70
Millis, . . .	3,328 60	773 50	785 53	69 00	500 00	318 74	121 78	5,897 15	1,730 42	4,166 73
Milton, . . .	44,780 62	1,747 50	10,212 23	406 01	2,400 00	3,687 22	1,516 82	64,750 40	–	64,750 40
Needham, . .	15,378 50	135 01	3,821 57	91 50	800 00	1,520 02	448 14	22,194 74	–	22,194 74
Norfolk, . .	2,388 02	896 62	556 96	117 25	500 00	206 04	43 57	4,708 46	1,491 98	3,216 48

Norwood, . .	24,800 42	665 00	5,477 60	100 00	1,883 33	2,573 72	974 20	36,474 27	35 50	36,438 77
Plainville, . .	3,987 50	57 50	1,169 92	120 00	375 00	315 11	375 44	6,400 47	-	6,400 47
Quincy, . .	86,831 20	1,002 20	14,136 85	750 00	2,500 00	6,664 76	3,351 49	115,236 50	236 50	115,000 00
Randolph, . .	10,219 15	240 00	1,434 15	340 00	600 00	1,260 04	1,305 65	15,398 99	1,284 24	14,114 75
Sharon, . .	7,403 15	232 58	1,671 67	35 00	338 25	1,076 45	28 85	10,785 95	2,022 03	8,763 92
Stoughton, . .	12,040 25	36 25	2,941 00	327 00	660 00	2,197 10	679 49	18,881 09	887 40	17,993 69
Walpole, . .	14,121 49	1,425 00	3,582 60	19 00	1,083 33	2,231 62	694 33	23,157 37	1,071 12	22,086 25
Wellesley, . .	24,136 55	-	4,955 80	161 73	1,500 00	3,548 00	1,588 84	35,890 92	152 50	35,738 42
Westwood, . .	4,321 50	625 70	979 95	156 65	500 00	539 01	335 30	7,458 11	1,209 31	6,248 80
Weymouth, . .	33,732 29	1,841 00	8,217 67	321 87	1,828 80	4,904 40	789 54	51,635 57	199 55	51,436 02
Wrentham, . .	5,818 00	802 25	1,238 89	105 00	525 00	1,003 49	278 19	9,770 82	2,424 43	7,346 39
Totals, . .	$592,513 88	$24,397 89	$127,957 99	$7,087 26	$33,029 29	$62,969 67	$26,839 64	$874,795 62	$28,199 93	$846,595 69

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.							LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.	Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Principal.	Income.	Dog tax and other income voluntarily appropriated to the public schools.
Nantucket,	–	–	$284 44	$284 44	–	$284 44	$8,981 85	–	–	$340 80

NORFOLK COUNTY — CONTINUED.

Avon,	–	$134 73	$755 39	$890 12	–	$890 12	$6,440 51	–	–	–
Bellingham,	–	–	68 64	68 64	–	68 64	5,083 76	–	–	$280 46
Braintree,	$18,025 72	1,030 28	1,383 59	20,439 59	–	20,439 59	50,180 47	$7,000 00	$350 00	880 56
Brookline,	2,200 00	24,011 78	8,409 43	34,621 21	–	34,621 21	227,203 06	–	–	–
Canton,	–	–	693 50	693 50	–	693 50	18,685 47	–	–	649 94
Cohasset,	–	–	818 08	818 08	–	818 08	17,723 27	1,000 00	35 30	470 13
Dedham,	–	681 41	2,095 28	2,776 69	–	2,776 69	52,455 66	–	–	–
Dover,	–	–	165 96	165 96	–	165 96	4,549 61	–	–	222 86
Foxborough,	–	–	142 02	142 02	–	142 02	13,331 43	–	–	673 99
Franklin,	–	–	798 70	798 70	–	798 70	23,041 56	–	–	1,542 17
Holbrook,	–	–	400 00	400 00	–	400 00	7,970 95	–	–	–
Hyde Park,	–	1,650 00	900 00	2,550 00	–	2,550 00	54,959 92	–	–	–
Medfield,	–	–	784 06	784 06	–	784 06	6,784 06	3,540 00	141 60	–
Medway,	–	–	1,352 95	1,352 95	–	1,352 95	8,791 65	–	–	–
Millis,	–	300 00	131 41	431 41	–	431 41	4,598 14	–	–	–
Milton,	3,939 79	150 00	1,704 69	5,794 48	–	5,794 48	70,544 88	–	–	–
Needham,	3,384 21	167 02	1,014 20	4,565 43	–	4,565 43	26,760 17	–	–	–
Norfolk,	–	202 81	168 63	371 44	–	371 44	3,587 92	–	–	176 30

Norwood,	–	–	2,527 32	2,527 32	–	2,527 32	38,966 09	500 00	15 00	–
Plainville,	20,946 28	180 00	–	21,126 28	–	21,126 28	27,526 75	727 30	30 51	343 89
Quincy,	–	–	–	–	–	–	115,000 00	1,000 00	40 00	–
Randolph,	–	–	95 33	95 33	–	95 33	14,210 08	17,286 33	856 62	553 93
Sharon,	–	95 97	324 53	420 50	–	420 50	9,184 42	12,510 00	682 69	–
Stoughton,	–	–	1,134 43	1,134 43	–	1,134 43	19,128 12	1,000 00	38 17	–
Walpole,	–	5,822 14	1,162 11	6,984 25	–	6,984 25	29,070 50	–	–	482 87
Wellesley,	–	324 30	1,532 27	1,856 57	–	1,856 57	37,594 99	–	–	–
Westwood,	–	108 84	304 25	413 09	–	413 09	6,661 89	–	–	–
Weymouth,	–	1,595 75	3,350 69	4,946 44	–	4,946 44	56,382 46	–	–	636 12
Wrentham,	–	40 00	–	40 00	–	40 00	7,386 39	1,090 96	53 21	309 36
Totals,	$48,496 00	$36,495 03	$32,217 46	$117,208 49	–	$117,208 49	$963,804 18	$45,654 59	$2,243 10	$7,222 58

NANTUCKET COUNTY — Concluded.

Towns and Cities.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Nantucket,	–	–	–	–	–	–	–	–	$66,761 00	$3,000 00

NORFOLK COUNTY — Concluded.

Avon,	$957 29	–	–	–	–	–	–	–	–	–
Bellingham,	1,176 40	–	–	–	–	–	–	–	–	–
Braintree,	–	$175 00	1	125	–	–	$1,000 00	–	$325,000 00	$19,000 00
Brookline,	–	1,588 79	–	–	2	333	–	$3,900 00	–	–
Canton,	–	–	–	–	1	284	–	–	–	–
Cohasset,	–	50 00	–	–	–	–	–	–	–	–
Dedham,	–	–	–	–	1	30	–	1,000 00	–	–
Dover,	957 29	–	–	–	–	–	–	–	–	–
Foxborough,	951 39	–	–	–	–	–	–	–	–	–
Franklin,	–	50 00	1	184	–	–	10,300 00	–	251,990 00	5,951 00
Holbrook,	807 29	–	–	–	–	–	–	–	–	–
Hyde Park,	–	–	–	–	3	866	–	–	–	–
Medfield,	807 29	–	–	–	–	–	–	–	–	–
Medway,	807 29	–	–	–	–	–	–	–	–	–
Millis,	957 29	21 27	–	–	–	–	–	–	–	–
Milton,	–	–	–	–	–	–	–	–	–	–
Needham,	–	–	–	–	–	–	–	–	–	–
Norfolk,	957 30	8 00	–	–	–	–	–	–	–	–

Norwood,	–	–	–	–	–	–	–	–	–	–
Plainville,	–	–	–	–	–	–	–	–	–	–
Quincy,	–	–	–	–	5	270	–	10,000 00	390,000 00	19,000 00
Randolph,	807 30	–	–	–	–	–	–	–	–	–
Sharon,	732 30	–	–	–	–	–	–	–	–	–
Stoughton,	–	50 00	–	–	1	241	–	–	–	–
Walpole,	–	400 00	–	–	–	–	–	–	–	–
Wellesley,	–	–	1	124	3	276	20,000 00	108,000 00	300,000 00	21,000 00
Westwood,	732 30	–	–	–	1	24	–	–	–	–
Weymouth,	–	–	–	–	–	–	–	–	–	–
Wrentham,	1,026 39	–	–	–	–	–	–	–	–	–
Totals,	$11,677 12	$2,343 06	3	433	17	2,324	$31,300 00	$122,900 00	$1,266,990 00	$64,951 00

PLYMOUTH COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Abington,	5,081	$2,590,258	20	852	603	1,037	1	67	608	931	870	.93
Bridgewater,	6,754	3,193,259	25	713	519	965	45	152	602	861	800	.93
Brockton,	47,794	32,147,255	171	8,072	6,061	8,341	7	814	5,897	7,512	7,088	.94
Carver,	1,410	1,593,165	10	209	154	196	1	10	153	169	149	.88
Duxbury,	2,028	1,929,218	10	235	182	285	1	35	192	236	213	.90
East Bridgewater,	3,169	1,677,102	14	497	382	565	–	68	369	534	493	.92
Halifax,	494	321,186	5	77	48	89	1	2	50	64	55	.85
Hanover,	2,176	1,391,260	10	333	241	392	3	45	244	358	336	.94
Hanson,	1,490	1,272,026	8	237	174	254	5	7	174	222	200	.90
Hingham,	4,819	4,445,034	20	698	502	903	–	157	501	843	779	.92
Hull,	2,060	4,708,760	8	222	169	215	–	9	150	180	169	.94
Kingston,	2,205	1,458,678	12	363	263	437	3	37	294	405	376	.93
Lakeville,	912	625,496	6	146	105	147	–	4	113	126	109	.87
Marion,	1,029	1,577,720	6	134	95	134	–	8	95	121	111	.92
Marshfield,	1,763	1,703,770	11	257	174	301	3	32	216	259	229	.88
Mattapoisett,	1,180	1,584,335	7	215	175	193	–	18	132	174	159	.91
Middleborough,	6,888	4,291,254	31	1,180	841	1,368	–	189	889	1,211	1,133	.94
Norwell,	1,534	820,911	8	227	146	243	4	28	159	225	201	.89
Pembroke,	1,261	963,425	7	179	128	195	3	13	130	172	156	.91
Plymouth,	11,119	9,561,027	49	1,813	1,299	1,906	–	132	1,326	1,776	1,651	.93
Plympton,	514	332,160	3	63	41	70	–	3	41	56	49	.88
Rochester,	1,181	558,750	6	159	108	166	2	5	134	138	119	.86
Rockland,	6,287	3,490,755	25	1,038	743	1,147	9	124	758	1,109	1,042	.94
Scituate,	2,597	3,727,573	12	431	308	517	–	66	308	436	398	.91
Wareham,	3,660	3,402,554	21	590	443	676	5	60	515	583	529	.91

West Bridgewater,	2,006	1,123,222	10	328	238	329	1	4	239	307	283	.92
Whitman,	6,521	4,312,825	25	1,155	840	1,253	4	143	830	1,206	1,140	.95
Totals,	127,932	$94,802,978	540	20,423	14,982	22,324	98	2,232	15,119	20,214	18,837	.93

SUFFOLK COUNTY.

Boston,	595,380	$1,259,731,682	1,997	101,865	70,282	102,880	2,873	9,390	58,168	91,409	82,561	.90
Chelsea,	37,289	25,109,797	136	7,232	5,777	6,883	–	499	4,460	6,147	5,678	.92
Revere,	12,659	12,263,200	66	2,759	1,880	2,761	5	226	1,906	2,605	2,439	.94
Winthrop,	7,034	9,244,300	29	1,293	898	1,439	–	178	923	1,247	1,122	.90
Totals,	652,362	$1,306,348,979	2,228	113,149	78,837	113,963	2,878	10,293	65,457	101,408	91,800	.91

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Abington,	3	24	5	1	17	$105 00	$50 83	179-5	8-19	1	7	213	9-11	$7,500 00
Bridgewater,	3	29	6	1	25	153 00	63 00	221-12	8-17	1	6	135	9-10	7,559 29
Brockton,	14	191	19	1	111	164 16	60 61	1,673-2	9-15	1	23	665	9-7	26,457 29
Carver,	3	8	2	1	3	45 33	37 00	90-1	9	1	2	14	9-15	1,175 00
Duxbury,	1	11	1	–	4	100 00	42 72	88-7	8-16	1*	3	47	9-11	1,640 00
East Bridgewater,	1	17	3	–	14	110 00	43 82	122-3	8-14	1	2	64	9-12	2,328 27
Halifax,	1	4	–	1	4	51 52	37 16	41-15	8-7	–	–	–	–	–
Hanover,	2	11	3	1	–	77 02	38 84	93-4	9-6	1	3	77	9-8	2,215 01
Hanson,	1	7	–	–	2	48 00	39 00	70	8-15	–	–	–	–	–
Hingham,	5	20	6	2	17	110 00	47 25	200	10	1	6	196	10	7,105 68
Hull,	2	6	–	–	8	85 00	48 00	77-12	9-14	–	–	–	–	–
Kingston,	1	13	2	–	6	100 00	45 54	107-19	9	1	3	65	9-15	2,861 36
Lakeville,	–	6	–	–	4	–	36 00	51-5	8-10	–	–	–	–	–
Marion,	1	5	–	1	2	50 00	41 00	54	9	1†	6	84	9-5	10,000 00
Marshfield,	1	11	2	–	3	90 00	40 36	96-1	8-15	1	2	47	9-9	2,414 07
Mattapoisett,	1	6	1	1	3	75 00	39 33	65-11	9-7	1	1	16	9-16	891 41
Middleborough,	5	35	3	–	9	106 25	44 94	289-10	9-6	1	6	200	9-15	7,850 00
Norwell,	1	8	3	–	3	90 00	36 63	76-10	9-11	1	3	50	10	2,504 28
Pembroke,	1	7	–	–	–	64 00	34 70	62-1	8-17	1	1	29	8-11	772 39
Plymouth,	6	51	4	2	16	96 00	47 10	474-10	9-14	1	6	128	9-16	7,172 70
Plympton,	–	3	–	–	3	–	42 67	25-15	8-12	–	–	–	–	–
Rochester,	1	5	–	–	6	46 66	37 60	52-5	8-17	–	–	–	–	–
Rockland,	5	26	4	–	14	85 00	51 42	233-11	9-6	1	6	159	9-10	6,025 69
Scituate,	1	12	2	1	2	105 00	46 53	114	9-10	1	2	60	10	2,600 00
Wareham,	1	22	3	–	8	106 06	45 40	190	9	1	3	70	10	3,154 99

West Bridgewater,	–	11	–	–	7	–	45 03	85-15	8-11	1†	8	27	8	–
Whitman,	2	33	7	1	17	107 50	53 31	240	9-12	1	6	159	9-13	6,179 77
Totals,	63	582	76	14	308	$108 98	$51 34	5,075-14	9-8	21	105	2,505	9-11	$108,407 20

SUFFOLK COUNTY — CONTINUED.

Boston,	282	2,120	155	91	1,752	$211 25	$70 65	19,171	9-12	13	285	8,115	124-3	$627,604 74
Chelsea,	8	145	9	5	80	166 87	62 60	1,139-5	8-7	1	18	428	8-18	20,657 53
Revere,	3	73	5	1	32	115 00	56 39	606-14	9-4	1	8	160	9-9	7,694 91
Winthrop,	5	33	6	1	22	120 00	58 63	265-7	9-3	1	7	145	9-3	8,800 00
Totals,	298	2,371	175	98	1,886	$207 56	$69 55	21,182-6	9-10	16	318	8,848	9-10	$664,757 18

* Partridge Academy. † Tabor Academy. ‡ Howard Seminary.

PLYMOUTH COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for the Support of Public Schools.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support, diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Abington,	$15,962 00	$880 00	$3,212 25	$337 00	$958 33	$1,880 45	$818 65	$24,048 68	$625 00	$23,423 68
Bridgewater,	23,570 00	625 05	1,693 77	–	958 33	1,958 26	685 33	29,490 74	9,648 00	19,842 74
Brockton,	135,977 06	75 00	28,183 66	1,127 15	2,800 00	11,951 30	4,144 54	184,258 71	275 46	183,983 25
Carver,	3,924 00	333 00	606 65	291 26	600 00	460 98	48 91	6,264 80	1,540 54	4,724 26
Duxbury,	5,112 16	–	811 74	63 19	500 00	482 47	14 00	6,983 56	1,168 99	5,814 57
East Bridgewater,	8,259 80	560 00	1,578 75	–	700 00	616 76	407 26	12,122 57	1,449 07	10,673 50
Halifax,	1,397 49	418 04	71 00	10 00	266 66	58 44	40 69	2,262 32	1,262 32	1,000 00
Hanover,	5,983 25	459 80	877 04	135 00	500 00	784 30	31 60	8,770 99	1,038 67	7,732 32
Hanson,	3,591 14	123 75	217 21	137 47	500 00	385 19	143 38	5,098 14	1,879 49	3,218 65
Hingham,	14,716 00	1,000 00	4,356 85	115 00	1,300 00	1,787 40	756 30	24,031 55	1,943 50	22,088 05
Hull,	4,255 38	1,275 90	2,064 96	235 00	275 00	482 71	548 27	9,137 22	–	9,137 22
Kingston,	7,053 00	509 50	1,348 14	183 55	600 00	809 76	375 86	10,879 81	1,863 29	9,016 52
Lakeville,	2,660 00	541 50	159 88	63 71	450 00	234 09	6 25	4,115 43	2,618 23	1,497 20
Marion,	2,755 50	507 50	667 81	159 75	512 50	582 17	22 41	5,207 64	1,221 92	3,985 72
Marshfield,	5,353 18	899 90	532 64	205 00	500 00	264 61	236 90	7,992 23	1,331 93	6,660 30
Mattapoisett,	3,427 25	557 44	914 01	100 50	360 00	393 77	113 08	5,866 05	1,824 49	4,041 56
Middleborough,	19,546 90	2,736 00	3,397 87	163 00	1,800 00	1,529 60	587 78	29,761 15	2,256 00	27,505 15
Norwell,	3,823 00	2,221 00	572 25	94 45	500 00	543 41	78 49	7,832 60	2,290 05	5,542 55
Pembroke,	3,114 50	127 50	285 78	82 00	500 00	240 63	24 62	4,375 03	1,412 01	2,963 02
Plymouth,	29,306 02	504 49	7,219 76	100 00	2,000 00	2,961 12	734 21	42,825 60	18 25	42,807 35
Plympton,	1,325 00	58 00	211 47	55 00	200 00	169 63	64 60	2,083 70	681 11	1,402 59
Rochester,	2,566 50	524 70	202 17	56 80	450 00	260 97	47 05	4,108 19	1,475 89	2,632 30
Rockland,	18,618 75	33 00	3,653 04	–	836 67	2,564 88	825 22	26,531 56	617 00	25,914 56
Scituate,	6,766 89	3,218 04	2,039 08	184 00	500 00	868 70	126 04	13,702 75	494 17	13,208 58
Wareham,	9,280 00	802 85	1,683 18	320 80	900 00	1,344 90	748 27	15,080 00	750 00	14,330 00

West Bridgewater,	4,832 01	643 40	771 17	40 82	500 00	371 21	44 63	7,203 24	1,650 47	5,552 77
Whitman, . .	17,382 30	–	4,400 99	165 00	1,000 00	2,660 35	743 65	26,352 29	777 06	25,575 23
Totals, . .	$360,559 08	$19,635 36	$71,733 12	$4,425 45	$20,967 49	$36,648 06	$12,417 99	$526,386 55	$42,112 91	$484,273 64

SUFFOLK COUNTY — CONTINUED.

Boston, . . .	$2,684,746 20	$279 15	$386,037 15	$55,436 74	$28,135 33	$86,091 16	$100,390 44	$3,341,116 17	$60,916 60	$3,280,199 57
Chelsea, . .	115,754 38	90 00	19,308 99	1,925 00	2,800 00	10,146 83	2,258 46	152,283 66	220 98	152,062 68
Revere, . . .	46,445 16	18 00	11,892 05	800 00	2,000 00	5,563 35	4,772 05	71,490 61	68 71	71,421 90
Winthrop, . .	24,809 00	150 00	4,577 09	75 00	1,660 00	2,775 05	1,286 04	35,332 18	–	35,332 18
Totals, . .	$2,871,754 74	$537 15	$421,815 28	$58,236 74	$34,595 33	$104,576 39	$108,706 99	$3,600,222 62	$61,206 29	$3,539,016 33

PLYMOUTH COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Abington,	–	$590 40	$729 44	$1,319 84	–	$1,319 84	$24,743 52	–	–	–
Bridgewater,	–	900 00	438 85	1,338 85	–	1,338 85	21,181 59	$6,300 00	$281 36	$1,318 50
Brockton,	–	–	5,702 27	5,702 27	–	5,702 27	189,685 52	–	–	1,794 19
Carver,	–	–	430 92	430 92	$60 57	370 35	5,094 61	8,000 00	350 00	–
Duxbury,	$1,120 00	–	324 77	1,444 77	–	1,444 77	7,259 34	–	–	301 78
East Bridgewater,	–	74 50	289 46	363 96	–	363 96	11,037 46	–	–	464 04
Halifax,	4,825 00	–	–	4,825 00	–	4,825 00	5,825 00	–	–	–
Hanover,	–	51 99	343 38	395 37	–	395 37	8,127 69	–	–	260 85
Hanson,	–	–	195 94	195 94	–	195 94	3,414 59	–	–	–
Hingham,	–	200 00	385 96	585 96	–	585 96	22,674 01	1,000 00	35 30	1,149 63
Hull,	–	237 35	1,373 62	1,610 97	–	1,610 97	10,748 19	–	–	–
Kingston,	–	–	389 81	389 81	–	389 81	9,406 33	–	–	161 38
Lakeville,	–	–	58 64	58 64	–	58 64	1,555 84	–	–	–
Marion,	–	174 29	169 65	343 94	–	343 94	4,329 66	–	–	205 93
Marshfield,	–	–	78 43	78 43	–	78 43	6,738 73	–	–	430 40
Mattapoisett,	–	91 14	129 32	220 46	–	220 46	4,262 02	9,858 50	385 78	–
Middleborough,	–	106 00	894 00	1,000 00	–	1,000 00	28,505 15	–	–	–
Norwell,	–	389 46	78 41	467 87	–	467 87	6,010 42	–	–	336 25
Pembroke,	–	–	256 70	256 70	–	256 70	3,219 72	–	–	121 25
Plymouth,	20,986 58	–	3,075 14	24,061 72	–	24,061 72	66,869 07	365 00	18 25	–
Plympton,	–	36 00	48 10	84 10	–	84 10	1,486 69	–	–	99 20
Rochester,	–	–	191 72	191 72	–	191 72	2,824 02	8,100 00	403 17	258 11
Rockland,	–	253 19	788 22	1,041 41	–	1,041 41	26,955 97	–	–	–
Scituate,	–	645 11	355 44	1,000 55	–	1,000 55	14,209 13	–	–	–
Wareham,	–	–	742 32	742 32	–	742 32	15,072 32	–	–	369 98

West Bridgewater, .	–	128 28	278 85	407 13	–	407 13	5,959 90	–	–	–
Whitman, . .	12,898 29	–	691 70	13,589 99	–	13,589 99	39,165 22	–	–	1,607 63
Totals, . .	$39,829 87	$3,877 71	$18,441 06	$62,148 64	$60 57	$62,088 07	$546,361 71	$33,623 50	$1,473 86	$8,879 12

SUFFOLK COUNTY — Continued.

Boston, . . .	$1,033,829 17	$336,700 00	–	$1,370,529 17	–	$1,370,529 17	$4,650,728 74	$127,975 00	$4,885 63	$52,830 04
Chelsea, . . .	976 05	21,204 50	$8,586 82	30,767 37	–	30,767 37	182,830 05	–	–	–
Revere, . . .	–	1,060 62	1,385 50	2,446 12	–	2,446 12	73,868 02	–	–	1,071 18
Winthrop, . .	–	600 00	1,443 22	2,043 22	–	2,043 22	37,375 40	–	–	733 25
Totals, . .	$1,034,805 22	$359,565 12	$11,415 54	$1,405,785 88	–	$1,405,785 88	$4,944,802 21	$127,975 00	$4,885 63	$54,634 47

PLYMOUTH COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Abington,	–	–	–	–	–	–	–	–	–	–
Bridgewater,	–	–	–	–	–	–	–	–	–	–
Brockton,	–	–	–	–	4	910	–	$3,240 00	–	–
Carver,	$675 84	–	–	–	–	–	–	–	–	–
Duxbury,	675 84	–	–	–	1	54	–	2,560 00	$24,000 00	$1,000 00
East Bridgewater,	807 29	$50 00	–	–	–	–	–	–	–	–
Halifax,	1,025 84	–	–	–	–	–	–	–	–	–
Hanover,	807 29	–	–	–	–	–	–	–	–	–
Hanson,	957 29	–	–	–	–	–	–	–	–	–
Hingham,	–	–	1	41	–	–	$1,366 00	–	38,000 00	729 00
Hull,	–	–	–	–	–	–	–	–	–	–
Kingston,	1,026 39	–	–	–	–	–	–	–	–	–
Lakeville,	1,176 39	–	–	–	–	–	–	–	–	–
Marion,	588 20	–	–	–	–	–	–	–	250,000 00	11,000 00
Marshfield,	807 29	–	–	–	–	–	–	–	–	–
Mattapoisett,	1,026 39	–	–	–	–	–	–	–	–	–
Middleborough,	–	110 00	1	19	–	–	–	–	–	–
Norwell,	1,176 39	–	–	–	–	–	–	–	–	–
Pembroke,	825 83	–	–	–	–	–	–	–	–	–
Plymouth,	–	–	–	–	–	–	–	–	–	–
Plympton,	500 00	–	–	–	–	–	–	–	–	–
Rochester,	825 83	–	–	–	–	–	–	–	–	–
Rockland,	–	–	–	–	–	–	–	–	–	–
Scituate,	–	–	–	–	–	–	–	–	–	–
Wareham,	–	–	–	–	–	–	–	–	–	–

West Bridgewater,	1,026 39	–	1	58	–	–	6,600 00	–	145,833 65	5,834 50
Whitman,	–	–	–	–	–	–	–	–	–	–
Totals,	$13,928 49	$160 00	3	118	5	964	$7,966 00	$5,800 00	$457,833 65	$18,563 50

SUFFOLK COUNTY — CONCLUDED.

Boston,	–	–	4	432	92	24,403	$27,608 46	$460,153 52	$3,249,023 95	$116,023 32
Chelsea,	–	$1,356 00	–	–	1	1,035	–	–	–	–
Revere,	–	–	–	–	–	–	–	–	–	–
Winthrop,	–	–	–	–	–	–	–	–	–	–
Totals,	–	$1,356 00	4	432	93	25,438	$27,608 46	$460,153 52	$3,249,023 95	$116,023 32

WORCESTER COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No. of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Ashburnham,	1,851	$922,460	13	363	274	381	4	77	252	338	316	.93
Athol,	7,197	4,264,795	24	1,195	833	1,226	–	171	831	1,124	1,037	.92
Auburn,	2,006	985,000	10	398	295	350	3	4	262	286	245	.86
Barre,	2,558	1,625,310	14	423	309	406	5	55	271	356	314	.88
Berlin,	906	545,260	5	173	127	191	–	3	150	159	141	.90
Blackstone,	5,786	2,307,809	26	1,152	939	1,110	24	40	900	1,038	954	.92
Bolton,	762	487,688	4	101	84	129	1	21	76	111	101	.91
Boylston,	649	451,674	4	120	78	122	–	4	91	105	96	.91
Brookfield,	2,388	1,266,235	16	420	312	505	6	72	317	434	406	.94
Charlton,	2,089	1,258,355	14	375	290	444	5	4	327	345	285	.82
Clinton,	13,105	7,971,379	47	2,437	1,713	2,253	10	116	1,695	2,049	1,917	.94
Dana,	763	353,402	5	133	101	129	–	2	98	122	108	.88
Douglas,	2,120	1,175,011	11	388	263	382	–	22	292	319	287	.90
Dudley,	3,818	1,412,250	15	792	541	462	8	15	302	360	334	.93
Fitchburg,	33,021	25,270,731	116	6,539	4,736	4,282	26	449	2,877	3,922	3,709	.94
Gardner,	12,012	6,541,938	39	2,118	1,490	1,671	12	180	1,000	1,557	1,485	.94
Grafton,	5,052	2,378,034	22	898	632	892	–	66	651	827	767	.93
Hardwick,	3,261	1,650,423	15	580	443	475	–	40	327	396	359	.90
Harvard,	1,077	1,102,851	6	137	107	164	1	8	127	137	127	.93
Holden,	2,640	1,416,369	16	508	417	499	7	4	401	440	399	.90
Hopedale,	2,048	5,037,682	12	310	217	381	16	54	217	333	311	.93
Hubbardston,	1,205	638,325	9	207	155	222	–	16	166	200	180	.90
Lancaster,	2,406	3,365,154	12	423	343	367	–	37	268	340	309	.90
Leicester,	3,414	2,137,990	22	620	476	702	3	43	505	636	583	.92
Leominster,	14,297	9,376,305	47	2,543	1,722	2,284	10	261	1,434	2,057	1,921	.93
Lunenburg,	1,293	983,283	8	226	158	241	–	25	138	195	178	.91
Mendon,	922	638,020	6	140	112	167	–	19	114	149	138	.93

Milford,	12,105	6,380,612	42	1,915	1,346	1,648	6	152	1,109	1,462	1,395	.95
Millbury,	4,631	2,292,305	19	935	636	858	3	51	664	746	673	.90
New Braintree,	477	402,610	4	89	68	90	2	2	70	69	64	.93
Northborough,	1,947	1,327,284	9	368	255	400	-	34	282	352	318	.90
Northbridge,	7,400	3,836,723	32	1,386	1,014	1,510	2	103	1,027	1,347	1,294	.96
North Brookfield,	2,617	1,664,388	11	541	356	455	-	72	286	436	408	.93
Oakham,	519	350,137	5	87	61	97	3	12	64	83	79	.95
Oxford,	2,927	1,621,565	16	531	496	640	1	28	464	552	488	.88
Paxton,	444	358,077	3	94	64	83	2	2	66	73	64	.88
Petersham,	855	676,284	5	140	94	120	-	2	84	109	102	.94
Phillipston,	442	285,157	3	64	50	79	2	1	55	68	59	.88
Princeton,	907	973,081	7	176	146	163	2	16	111	147	133	.91
Royalston,	903	499,600	6	136	109	165	3	6	123	128	116	.91
Rutland,	1,713	716,530	7	237	173	265	1	16	228	231	209	.91
Shrewsbury,	1,866	1,372,986	10	304	275	307	2	28	224	268	243	.91
Southborough,	1,931	1,444,864	9	318	227	375	6	39	247	334	292	.88
Southbridge,	11,000	4,698,561	31	2,113	1,486	1,237	7	120	780	950	904	.92
Spencer,	7,121	3,535,070	30	1,345	955	1,150	24	108	717	1,044	979	.94
Sterling,	1,315	913,060	7	201	140	246	5	13	154	201	181	.90
Sturbridge,	1,974	971,225	12	332	248	377	1	6	292	317	302	.95
Sutton,	3,173	1,259,537	18	635	420	689	1	14	531	539	454	.84
Templeton,	3,783	1,439,298	17	679	481	616	4	51	421	561	506	.90
Upton,	2.024	1,084,405	9	337	244	340	-	42	249	330	309	.93
Uxbridge,	3,881	2,534,965	23	741	529	818	6	48	588	705	639	.91
Warren,	4,300	1,762,743	15	801	531	604	6	88	380	597	566	.95
Webster,	10,018	6,032,924	20	2,033	1,490	716	3	61	465	635	590	.93
Westborough,	5,378	3,127,120	15	666	507	745	6	73	504	679	631	.92
West Boylston,	1,571	664,942	7	206	136	247	1	96	214	196	183	.93
West Brookfield,	1,384	848,709	7	159	145	196	-	3	142	174	157	.90
Westminster,	1,348	720,380	11	238	168	299	3	26	179	242	218	.90
Winchendon,	5,933	3,099,775	25	1,098	792	1,218	3	110	853	1,077	1,002	.93
Worcester,	128,135	120,865,502	456	21,610	16,242	22,170	809	2,209	14,179	19,615	17,857	.91
Totals,	362,668	$263,324,152	1,429	64,234	47,051	59,360	1,055	5,440	39,841	52,602	48,422	.92

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Ashburnham,	1	12	5	1	4	$156 25	$38 18	109-17	8-9	1	12	59	9-12	$1,640 18
Athol,	2	24	5	1	12	130 00	55 00	222-13	9-5	1	6	184	9-15	962 28
Auburn,	-	10	-	-	-	-	41 40	89-15	8-19	-	-	-	-	-
Barre,	1	17	3	1	10	100 00	36 40	127	9-2	1	4	56	10	3,757 34
Berlin,	-	7	-	-	3	-	33 22	43-5	8-13	-	-	-	-	-
Blackstone,	1	33	2	-	-	100 00	42 40	237-10	9-10	1	3	52	10	2,600 00
Bolton,	-	5	2	1	2	-	43 60	36-12	9-3	1	2	33	9-15	1,288 82
Boylston,	-	4	-	1	1	-	41 50	37	9-5	-	-	-	-	-
Brookfield,	1	17	2	-	6	110 00	39 53	145	9-1	1	2	49	10	2,076 66
Charlton,	-	15	-	-	5	-	34 32	119-5	8-10	-	-	-	-	-
Clinton,	2	52	4	-	12	130 00	62 71	443-8	9-8	1	6	215	9-11	7,093 30
Dana,	-	5	-	-	5	-	40 40	45	9	-	-	-	-	-
Douglas,	1	10	1	1	6	90 00	39 00	89-19	8-3	1	1	21	9-13	927 00
Dudley,	3	19	4	1	8	93 33	39 80	132-12	8-16	1	3	28	10	1,000 00
Fitchburg,	15	106	12	2	39	120 00	61 00	1,113-8	9-12	1	23	589	9-15	27,500 00
Gardner,	2	50	10	-	23	120 00	50 52	353-14	9-4	1	12	329	9-10	12,710 00
Grafton,	1	24	4	-	15	147 37	45 42	192-13	8-18	1	4	98	9-3	5,089 24
Hardwick,	2	15	2	3	6	74 00	39 38	136	9-2	1	3	51	10	4,225 36
Harvard,	-	7	-	-	5	-	40 50	58-12	9-15	1*	3	28	8-10	3,500 00
Holden,	1	16	1	-	6	102 56	39 00	137-7	8-11	1	2	65	9-9	1,911 00
Hopedale,	1	13	2	-	11	120 00	59 45	104-17	8-14	1	2	43	10	2,289 87
Hubbardston,	1	8	1	-	4	73 00	35 00	80-11	8-19	1	1	10	9-10	554 00
Lancaster,	1	12	1	-	7	120 00	50 33	109	9-2	1	2	36	9-13	3,328 25
Leicester,	2	21	3	-	8	105 00	42 25	197-11	8-19	1	3	53	9-15	4,720 00
Leominster,	5	58	8	-	30	120 00	51 33	449	9-11	1	11	290	9-12	139 73
Lunenburg,	1	8	1	-	3	70 00	40 25	66-3	8-5	1	2	45	9-15	1,469 48
Mendon,	1	6	2	-	2	90 00	39 83	54	9	1	2	31	10	1,647 58

Milford,	3	46	5	-	25	107 74	51 62	365	8-14	1	6	153	9-18	7,458 00
Millbury,	3	21	3	1	18	98 12	40 14	172	9-1	1	3	87	10	2,827 08
New Braintree,	-	4	-	-	4	-	40 00	34-17	8-14	-	-	-	-	-
Northborough,	1	12	2	1	9	100 00	40 84	78-14	8-15	1	2	31	9-8	1,820 32
Northbridge,	1	36	3	3	23	150 00	47 30	304-10	9-10	1	4	93	10	4,120 00
North Brookfield,	1	12	2	-	1	100 00	43 58	102	9-5	1	3	86	10	2,850 00
Oakham,	-	5	-	-	-	-	38 92	40	8	-	-	-	-	-
Oxford,	2	15	2	1	15	85 00	37 40	143-15	9	1	2	45	9-12	1,980 00
Paxton,	-	3	-	-	1	-	42 66	28-10	9-10	-	-	-	-	-
Petersham,	-	5	-	-	4	-	41 06	47-10	9-10	-	-	-	-	-
Phillipston,	-	3	-	-	3	-	40 00	27-9	9-3	-	-	-	-	-
Princeton,	-	9	2	-	7	-	38 77	59-8	8-10	1	2	17	9-15	688 94
Royalston,	-	6	-	-	2	-	43 11	49-12	8-5	-	-	-	-	-
Rutland,	1	7	2	-	5	64 00	39 14	56-7	8-1	1	2	35	9-13	1,230 00
Shrewsbury,	1	10	2	-	4	80 00	40 40	82-2	8-12	1	2	26	9-15	1,517 42
Southborough,	1	11	3	1	7	108 00	43 84	78-11	8-15	1	3	18	9-9	3,217 39
Southbridge,	2	38	5	-	9	95 00	42 34	300-14	9-14	1	5	110	9-13	5,226 52
Spencer,	2	33	5	-	9	104 32	45 93	270-8	9-1	1	5	104	9-13	5,365 00
Sterling,	1	8	2	-	6	70 00	34 60	61-14	8-19	1	2	40	9-15	1,437 00
Sturbridge,	-	13	-	-	1	-	38 00	110-15	9-5	-	-	-	-	-
Sutton,	2	18	2	1	10	40 00	33 62	162	9	1	1	20	10	724 88
Templeton,	1	19	2	-	4	90 00	36 12	144-7	8-10	1	3	48	9-13	2,285 75
Upton,	1	10	3	-	5	84 21	38 11	77-19	8-13	1	3	66	9-10	2,003 17
Uxbridge,	2	22	2	1	8	90 00	40 67	193-3	8-8	1	2	54	9-15	3,000 00
Warren,	3	16	4	1	8	83 52	41 32	131-17	8-15	1	4	96	9-10	3,780 41
Webster,	3	23	4	1	10	100 00	46 22	193-11	9-13	1	5	74	9-11	4,052 88
Westborough,	3	17	5	-	6	80 00	50 33	130-8	8-14	1	4	78	9-13	3,766 16
West Boylston,	1	7	2	-	2	125 00	47 71	61-15	8-16	1	2	28	9-7	2,389 10
West Brookfield,	-	7	-	1	3	-	39 00	62-17	8-19	-	-	-	-	-
Westminster,	-	13	-	-	5	-	33 66	88	8	1	1	30	9	600 00
Winchendon,	4	26	4	2	12	113 25	43 33	223-6	9	1	1	5	10	7,672 77
Worcester,	65	548	65	23	454	143 46	62 45	4,560	10	3	78	2,132	10 10 10	110,594 93
Totals,	149	1,597	206	49	913	$120 56	$51 84	13,374-11	9-7	48	254	5,841	9-14	$271,037 81

* Bromfield School.

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashburnham,	$4,424 00	$162 10	$496 87	$130 00	$283 32	$532 06	$61 99	$6,090 34	$263 26	$5,827 08
Athol,	16,311 96	1,521 90	3,433 92	35 00	1,978 81	1,839 70	1,106 55	26,227 84	1,332 00	24,895 84
Auburn,	4,970 50	81 02	543 50	145 00	540 00	335 65	50 00	6,665 67	2,283 60	4,382 07
Barre,	7,193 92	798 25	2,170 86	23 00	573 48	955 53	234 95	11,949 99	1,477 37	10,472 62
Berlin,	3,203 70	321 95	390 00	80 00	214 80	244 80	100 85	4,556 10	2,112 75	2,443 35
Blackstone,	13,612 00	102 20	2,000 00	60 00	888 00	833 32	45 00	17,540 52	506 75	17,033 77
Bolton,	2,188 50	1,413 00	232 68	42 00	342 86	346 30	5 00	4,570 34	2,387 58	2,182 76
Boylston,	1,802 00	1,826 00	760 35	76 00	282 13	223 30	51 40	5,021 18	1,852 16	3,169 02
Brookfield,	7,531 00	121 44	1,392 40	170 00	750 00	466 21	90 27	10,521 32	1,742 68	8,778 64
Charlton,	5 463 70	153 25	620 24	160 00	775 02	707 05	141 90	8,021 16	1,600 16	6,421 00
Clinton,	30,548 38	-	7,023 68	1,450 00	2,000 00	3,418 32	2,669 40	47,109 78	-	47,109 78
Dana,	2,264 73	641 95	558 17	96 39	357 15	249 93	15 85	4,184 17	1,759 23	2,424 94
Douglas,	4 580 00	541 45	910 57	50 00	660 00	526 37	50 00	7,318 39	1,238 22	6,080 17
Dudley,	7,064 90	72 50	1,072 82	108 00	638 85	477 66	153 29	9,588 02	1,127 04	8,460 98
Fitchburg,	83,715 36	1,829 63	17,186 30	1,572 33	2,700 00	5,495 20	4,196 70	116,695 52	556 00	116,139 52
Gardner,	28,662 10	825 00	7,258 41	26 75	2,100 00	3,485 33	1,370 31	43,727 90	242 99	43,484 91
Grafton,	11,875 56	3,104 83	3,675 31	243 09	1,300 00	1,250 25	307 14	21,756 18	1,811 73	19,944 45
Hardwick,	7,027 82	2,931 75	1,803 56	73 70	617 64	1,642 47	382 53	14,479 47	1,208 58	13,270 89
Harvard,	2,521 00	1,804 18	615 34	-	510 49	328 98	276 17	6,056 16	1,692 70	4,363 46
Holden,	6,949 03	252 75	1,925 01	90 00	800 00	538 52	114 87	10,670 18	1,760 22	8,909 96
Hopedale,	9,034 00	527 08	2,539 43	-	616 70	486 53	418 45	13,622 19	-	13,622 19
Hubbardston,	3,756 00	502 00	395 00	83 00	302 00	233 00	27 00	5,298 00	1,685 00	3,613 00
Lancaster,	7,421 00	1,630 00	2,105 11	100 00	1,000 00	955 52	341 09	12,952 72	-	12,952 72
Leicester,	10,305 00	1.358 15	2,030 43	40 00	775 00	727 99	229 77	15,466 34	1,863 00	13,603 34
Leominster,	35,188 09	2,282 20	10,052 92	950 00	2,000 00	5,127 40	1,022 60	56,623 21	570 00	56,053 21
Lunenburg,	3,593 00	243 50	628 02	152 75	411 39	459 02	49 23	5,536 91	1,644 03	3,892 88
Mendon,	3,201 00	491 50	826 98	13 75	616 60	285 55	121 19	5,556 57	1,767 40	3,789 17

Milford,	24,334 32	400 00	6,108 46	50 00	1,800 00	1,992 14	2,336 22	37,021 14	192 28	36,828 86
Millbury,	11,061 90	250 00	1,934 84	150 00	960 00	1,026 16	606 49	15,989 39	1,076 45	14,912 94
New Braintree,	1,659 30	395 60	208 00	6 25	450 00	263 36	75 00	3,057 51	1,689 85	1,367 66
Northborough,	6,109 00	1,339 71	1,304 83	116 40	428 40	500 20	173 29	9,971 83	2,230 51	7,741 32
Northbridge,	18,783 02	557 50	4,643 79	21 00	750 00	1,757 42	477 49	26,990 22	-	26,990 22
North Brookfield,	6,666 00	1,511 00	914 05	60 00	750 00	972 59	328 39	11,202 03	1,665 33	9,536 70
Oakham,	1,629 50	17 20	202 60	58 92	273 34	127 43	69 00	2,377 99	1,394 11	983 88
Oxford,	7,778 77	157 60	2,099 15	195 00	640 00	923 49	662 87	12,456 88	1,608 29	10,848 59
Paxton,	1,497 00	538 40	401 52	50 00	160 00	83 76	95 28	2,825 96	1,625 96	1,200 00
Petersham,	3,020 38	1,787 95	296 41	70 00	308 88	202 49	64 13	5,750 24	1,198 65	4,551 59
Phillipston,	1,569 50	483 50	127 30	50 00	150 00	227 15	-	2,607 45	1,648 57	958 88
Princeton,	3,359 37	300 00	253 90	95 00	300 00	365 15	22 91	4,696 33	1,038 74	3,657 59
Royalston,	2,570 25	608 00	372 18	92 00	300 00	316 94	-	4,259 37	1,633 77	2,625 60
Rutland,	2,914 40	1,447 35	789 12	58 00	366 65	273 66	82 94	5,932 12	1,750 74	4,181 38
Shrewsbury,	5,388 83	818 70	657 28	164 75	499 80	307 13	332 17	8,168 66	1,515 99	6,652 67
Southborough,	6,050 00	1,452 00	1,835 00	154 50	428 40	604 20	524 13	11,048 23	2,029 39	9,018 84
Southbridge,	18,708 28	147 22	4,008 61	111 75	900 00	1,203 21	1,947 69	27,026 76	-	27,026 76
Spencer,	16,152 15	822 58	4,155 51	15 25	1,519 50	1,152 44	434 63	24,252 06	650 25	23,601 81
Sterling,	3,688 88	734 85	341 44	67 69	600 00	373 59	26 84	5,833 29	2,280 78	3,552 51
Sturbridge,	5,230 28	1,270 20	564 28	54 30	614 00	382 72	142 67	8,258 45	1,497 99	6,760 46
Sutton,	6,079 75	367 00	1,247 25	170 01	960 00	743 58	57 11	9,624 70	1,732 21	7,892 49
Templeton,	6,884 45	1,221 30	1,488 60	140 43	750 00	817 16	25 00	11,326 94	1,720 33	9,606 61
Upton,	4,430 50	742 75	1,046 33	21 09	425 00	555 16	105 87	7,326 70	1,301 27	6,025 43
Uxbridge,	10,390 57	53 75	2,786 61	10 50	990 00	842 01	360 13	15,433 57	846 24	14,587 33
Warren,	9,248 91	1,893 70	2,498 78	17 00	1,233 32	1,106 57	100 66	16,098 94	2,652 26	13,446 68
Webster,	14,320 15	266 00	2,419 46	50 00	1,366 65	1,630 42	3,218 91	23,271 59	-	23,271 59
Westborough,	9,678 16	1,922 99	1,898 64	50 00	600 00	1,410 61	1,086 49	16,646 89	150 44	16,496 45
West Boylston,	4,970 40	1,816 00	1,122 12	162 61	816 68	415 65	386 58	9,690 04	2,184 46	7,505 58
West Brookfield,	3,399 96	867 92	471 56	30 00	450 00	268 55	276 71	5,764 70	1,347 09	4,417 61
Westminster,	3,459 00	520 00	460 44	86 80	600 00	232 46	64 77	5,423 47	1,442 09	3,981 38
Winchendon,	15,994 71	768 77	4,713 04	160 01	1,213 54	1,381 80	1,275 26	25,507 13	8,579 23	16,927 90
Worcester,	458,306 69	1,141 00	85,040 41	8,828 29	4,000 00	31,011 36	6,477 76	594,805 51	3,327 32	591,478 19
Totals,	$1,019,742 63	$51,560 12	$209,059 39	$17,338 31	$49,638 40	$85,612 52	$35,470 89	$1,468,452 26	$86,495 04	$1,381,957 22

WORCESTER COUNTY — Continued.

TOWNS AND CITIES.	Expenditures for School Buildings.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Local Funds whose Income must be appropriated to the Public Schools.		Dog tax and other income voluntarily appropriated to the public schools.
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashburnham,	–	–	$293 09	$293 09	–	$293 09	$6,120 17	–	–	–
Athol,	–	$960 00	251 98	1,211 98	–	1,211 98	26,107 82	–	–	–
Auburn,	–	525 00	346 28	871 28	–	871 28	5,253 35	–	–	$255 23
Barre,	–	–	222 79	222 79	–	222 79	10,695 41	–	–	349 50
Berlin,	–	–	135 03	135 03	–	135 03	2,578 38	$1,500 00	$56 51	130 70
Blackstone,	$3,228 50	–	599 84	3,828 34	–	3,828 34	20,862 11	–	–	–
Bolton,	–	–	387 02	387 02	–	387 02	2,569 78	12,000 00	549 87	–
Boylston,	–	–	70 98	70 98	–	70 98	3,240 00	–	–	–
Brookfield,	–	–	193 29	193 29	–	193 29	8,971 93	–	–	384 14
Charlton,	–	–	362 98	362 98	–	362 98	6,783 98	1,000 00	40 00	526 19
Clinton,	–	415 66	1,469 09	1,884 75	–	1,884 75	48,994 53	5,000 00	175 00	–
Dana,	–	134 01	129 72	263 73	–	263 73	2,688 67	–	–	149 54
Douglas,	–	200 00	460 29	660 29	–	660 29	6,740 46	941 33	56 48	–
Dudley,	–	873 65	293 66	1,167 31	–	1,167 31	9,628 29	–	–	387 81
Fitchburg,	9,286 68	1,000 00	2,067 13	12,353 81	–	12,353 81	128,493 33	–	–	–
Gardner,	–	–	2,413 87	2,413 87	–	2,413 87	45,898 78	–	–	–
Grafton,	–	400 00	609 76	1,009 76	–	1,009 76	20,954 21	–	–	–
Hardwick,	207 86	2,422 22	740 85	3,370 93	–	3,370 93	16,641 82	–	–	1,756 36
Harvard,	4,940 18	173 50	63 52	5,177 20	$63 50	5,113 70	9,477 16	–	–	–
Holden,	–	–	929 39	929 39	–	929 39	9,839 35	3,666 66	202 00	549 08
Hopedale,	–	125 38	753 53	878 91	–	878 91	14,501 10	–	–	–
Hubbardston,	–	–	453 00	453 00	–	453 00	4,066 00	1,200 00	72 00	–
Lancaster,	–	326 06	181 05	507 11	–	507 11	13,459 83	–	–	–
Leicester,	–	–	580 45	580 45	–	580 45	14,183 79	–	–	453 65
Leominster,	80,350 95	448 78	915 31	81,715 04	–	81,715 04	137,768 25	13,000 00	570 00	–
Lunenburg,	–	–	326 56	326 56	–	326 56	4,219 44	–	–	–
Mendon,	–	303 71	127 37	431 08	–	431 08	4,220 25	–	–	217 06

Milford,	–	–	1,171 10	1,171 10	–	1,171 10	37,999 96	–	–	–
Millbury,	–	180 00	1,016 16	1,196 16	–	1,196 16	16,109 10	–	–	–
New Braintree,	–	89 27	85 39	174 66	–	174 66	1,542 32	–	–	–
Northborough,	–	–	390 68	390 68	–	390 68	8,132 00	5,400 00	270 00	–
Northbridge,	–	807 01	1,701 37	2,508 38	–	2,508 38	29,498 60	–	–	853 74
North Brookfield,	–	–	545 79	545 79	–	545 79	10,082 49	–	–	391 16
Oakham,	–	–	88 29	88 29	–	88 29	1,072 17	–	–	50 95
Oxford,	–	2,903 70	243 59	3,147 29	–	3,147 29	13,995 88	1,200 00	48 00	–
Paxton,	–	–	86 64	86 64	–	86 64	1,286 64	–	–	–
Petersham,	–	–	163 13	163 13	–	163 13	4,714 72	–	–	161 82
Phillipston,	–	190 66	70 15	260 81	–	260 81	1,219 69	–	–	93 19
Princeton,	9,879 61	295 00	200 05	10,374 66	–	10,374 66	14,032 25	–	–	219 51
Royalston,	4,170 35	–	92 89	4,263 24	–	4,263 24	6,888 84	6,500 00	183 75	119 42
Rutland,	–	–	3 00	3 00	–	3 00	4,184 38	–	–	–
Shrewsbury,	–	–	258 98	258 98	–	258 98	6,911 65	1,000 00	37 67	–
Southborough,	–	–	120 80	120 80	–	120 80	9,139 64	–	–	147 31
Southbridge,	–	540 89	553 05	1,093 94	–	1,093 94	28,120 70	–	–	–
Spencer,	–	–	2,584 22	2,584 22	5 00	2,579 22	26,181 03	–	–	603 20
Sterling,	–	123 50	66 65	190 15	–	190 15	3,742 66	15,043 17	579 51	140 33
Sturbridge,	–	–	91 92	91 92	–	91 92	6,852 38	–	–	–
Sutton,	–	–	92 35	92 35	–	92 35	7,984 84	2,000 00	114 00	360 47
Templeton,	–	–	372 55	372 55	–	372 55	9,979 16	–	–	483 79
Upton,	–	194 83	159 46	354 29	–	354 29	6,379 72	–	–	381 12
Uxbridge,	5,077 95	–	592 76	5,670 71	–	5,670 71	20,258 04	–	–	–
Warren,	–	–	710 87	710 87	–	710 87	14,157 55	–	–	–
Webster,	80,000 00	748 00	–	80,748 00	–	80,748 00	104,019 59	–	–	590 92
Westborough,	–	4,448 72	682 95	5,131 67	–	5,131 67	21,628 12	–	–	–
West Boylston,	–	–	317 75	317 75	–	317 75	7,823 33	–	–	5,450 00
West Brookfield,	–	–	100 33	100 33	–	100 33	4,517 94	–	–	–
Westminster,	–	–	63 64	63 64	–	63 64	4,045 02	–	–	–
Winchendon,	9,718 29	–	549 22	10,267 51	29 45	10,238 06	27,165 96	275,000 00	7,893 60	–
Worcester,	26,907 08	11,550 69	20,386 65	58,844 42	406 36	58,438 06	649,916 25	2,000 00	95 39	–
Totals,	$233,767 45	$30,380 24	$48,940 21	$313,087 90	$504 31	$312,583 59	$1,694,540 81	$346,451 16	$10,943 78	$15,206 19

WORCESTER COUNTY — Concluded.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in—		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Ashburnham,	$957 29	$25 00	1	132	-	-	$8,376 00	-	$324,000 00	$12,982 00
Athol,	-	-	-	-	-	-	-	-	-	-
Auburn,	957 29	-	-	-	-	-	-	-	-	-
Barre,	1,026 40	-	-	-	1	41	-	-	-	-
Berlin,	957 29	-	-	-	-	-	-	-	-	-
Blackstone,	-	-	-	-	-	-	-	-	-	-
Bolton,	1,376 40	-	-	-	-	-	-	-	-	-
Boylston,	1,376 40	-	-	-	-	-	-	-	-	-
Brookfield,	1,026 40	-	-	-	-	-	-	-	-	-
Charlton,	807 29	-	-	-	-	-	-	-	-	-
Clinton,	-	-	-	-	1	456	-	-	25,000 00	-
Dana,	1,157 29	-	-	-	-	-	-	-	-	-
Douglas,	807 29	-	-	-	-	-	-	-	-	-
Dudley,	807 29	-	1	11	-	-	198 00	-	33,000 00	1,900 00
Fitchburg,	-	-	-	-	5	2,103	-	-	-	-
Gardner,	-	-	-	-	1	586	-	-	-	-
Grafton,	951 39	-	-	-	-	-	-	-	-	-
Hardwick,	807 29	-	-	-	1	217	-	-	-	-
Harvard,	1,026 39	-	-	-	-	-	-	-	-	-
Holden,	1,026 39	-	-	-	-	-	-	-	-	-
Hopedale,	-	-	-	-	-	-	-	-	-	-
Hubbardston,	957 29	-	-	-	-	-	-	-	-	-
Lancaster,	-	500 00	1	194	-	-	5,298 17	-	15,011 46	4,317 94
Leicester,	951 39	-	-	-	-	-	-	-	-	-
Leominster,	-	95 00	-	-	1	472	-	$1,500 00	23,000 00	-
Lunenburg,	957 29	-	-	-	-	-	-	-	-	-
Mendon,	1,176 39	-	-	-	-	-	-	-	-	-

Milford,	–	–	–	–	1	379	–	–	–	–
Millbury,	732 29	–	–	–	1	100	–	–	15,000 00	1,000 00
New Braintree,	1,157 30	–	–	–	–	–	–	–	–	–
Northborough,	1,026 39	–	–	–	–	–	–	–	–	–
Northbridge,	–	–	–	–	–	–	–	–	–	–
North Brookfield,	1,026 39	–	–	–	3	125	–	–	–	–
Oakham,	500 00	–	–	–	–	–	–	–	–	–
Oxford,	1,026 39	–	–	–	–	–	–	–	–	–
Paxton,	1,025 83	–	–	–	–	–	–	–	–	–
Petersham,	957 30	–	–	–	–	–	–	–	–	–
Phillipston,	1,157 30	–	–	–	–	–	–	–	–	–
Princeton,	957 30	–	–	–	–	–	–	–	–	–
Royalston,	1,025 83	–	–	–	–	–	–	–	–	–
Rutland,	957 30	–	–	–	–	–	–	–	–	–
Shrewsbury,	1,026 39	–	–	–	–	–	–	–	–	–
Southborough,	1,026 39	–	1	132	1	58	19,800 00	8,650 00	15,000 00	600 00
Southbridge,	–	–	–	–	2	890	–	–	–	–
Spencer,	–	7 00	–	–	1	376	–	1,400 00	–	–
Sterling,	957 30	4 90	–	–	–	–	–	–	–	–
Sturbridge,	1,176 39	–	–	–	–	–	–	–	–	–
Sutton,	807 30	–	–	–	–	–	–	–	–	–
Templeton,	1,026 39	–	–	–	–	–	–	–	–	–
Upton,	807 30	–	–	–	–	–	–	–	–	–
Uxbridge,	–	–	–	–	–	–	–	–	–	–
Warren,	1,026 39	–	–	–	–	–	–	–	–	–
Webster,	–	–	–	–	3	1,143	–	2,857 50	–	–
Westborough,	–	–	–	–	–	–	–	–	–	–
West Boylston,	1,176 39	–	–	–	–	–	–	–	–	–
West Brookfield,	1,176 39	–	–	–	–	–	–	–	–	–
Westminster,	957 30	–	–	–	–	–	–	–	–	–
Winchendon,	–	100 00	–	–	–	–	–	–	–	–
Worcester,	–	1,134 17	1	235	13	3,967	14,250 00	19,400 00	706,900 00	14,900 00
Totals,	$41,824 00	$1,866 07	5	704	35	10,913	$47,922 17	$33,807 50	$1,156,911 46	$35,699 94

RECAPITULATION.

COUNTIES.	Population — State Census of 1905.	Valuation — May 1, 1905.	No. of public schools.	School Census Data Sept. 1, 1905.		School Membership and Attendance Data for the School Year.						
				No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils within the year under 5 years of age.	No. of different pupils within the year over 15 years of age.	No of different pupils within the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.
Barnstable,	26,831	$26,674,131	148	4,307	3,237	4,953	42	635	3,160	4,447	4,064	.91
Berkshire,	98,330	68,341,719	483	17,899	12,967	17,102	378	1,381	11,262	14,899	13,671	.92
Bristol,	269,257	206,909,312	925	48,993	35,559	42,134	544	2,638	30,030	36,383	33,598	.92
Dukes,	4,551	4,996,822	25	754	539	788	1	76	516	701	625	.89
Essex,	381,181	306,812,624	1,312	65,269	47,117	59,890	878	5,692	38,349	52,773	49,075	.93
Franklin,	43,362	25,654,709	260	7,539	5,388	7,691	118	686	5,195	6,905	6,382	.92
Hampden,	196,013	163,498,342	765	35,093	25,114	32,261	1,538	2,695	20,314	27,755	25,462	.91
Hampshire,	62,227	35,929,858	315	10,405	7,631	10,938	171	1,002	7,243	9,519	8,811	.93
Middlesex,	608,499	570,177,989	2,273	104,214	73,793	105,663	2,649	11,354	67,807	95,450	88,382	.93
Nantucket,	2,930	3,283,002	11	412	304	482	–	47	296	443	409	.92
Norfolk,	167,537	235,500,546	741	29,622	21,793	31,267	955	3,082	19,779	28,101	25,970	.92
Plymouth,	127,932	94,802,978	540	20,423	14,982	22,324	98	2,232	15,119	20,214	18,837	.93
Suffolk,	652,362	1,306,348,979	2,228	113,149	78,837	113,963	2,878	10,293	65,457	101,408	91,800	.91
Worcester,	362,668	263,324,152	1,429	64,234	47,051	59,360	1,055	5,440	39,841	52,602	48,422	.92
Totals,	3,003,680	$3,312,255,163	11,455	522,313	374,312	508,816	11,305	47,253	324,368	451,600	415,508	.92

RECAPITULATION — CONTINUED.

COUNTIES.	TEACHERS AND TEACHERS' WAGES.							LENGTH OF SCHOOLING.		HIGH SCHOOLS.				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Av'ge No. of months the public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.										
Barnstable,	27	145	26	6	88	$78 71	$42 51	1,315-5	8-17	14	29	647	9-9	$29,990 25
Berkshire,	41	551	47	13	212	103 37	46 29	4,474-8	9-5	11	54	1,401	9-12	63,595 73
Bristol,	61	1,061	68	28	450	134 54	57 32	8,843-6	9-11	13	86	2,422	9-12	121,156 54
Dukes,	4	26	6	1	12	69 07	43 73	217-8	8-14	3	6	80	8-19	4,200 44
Essex,	118	1,556	179	35	581	135 63	52 56	12,585-7	9-12	28	231	5,784	9-14	277,339 78
Franklin,	11	288	35	7	114	105 09	40 27	2,292-12	8-16	10	40	823	9-15	35,222 23
Hampden,	71	868	91	53	484	141 96	54 93	7,216-16	9-8	11	118	2,723	9-14	158,180 24
Hampshire,	23	352	47	27	109	91 06	40 95	2,826-10	8-19	11	44	1,076	9-14	43,367 14
Middlesex,	255	2,695	356	117	1,246	147 17	60 99	21,137-3	9-6	49	455	11,603	9-8	591,200 04
Nantucket,	1	13	1	–	2	120 00	36 53	108	9-16	1	4	80	10	2,753 11
Norfolk,	85	854	128	27	364	133 69	56 53	6,946-2	9-7	27	154	3,710	9-13	184,965 54
Plymouth,	63	582	76	14	308	108 98	51 34	5,075-14	9-8	21	105	2,505	9-11	108,407 20
Suffolk,	298	2,371	175	98	1,886	207 56	69 55	21,182-6	9 10	16	318	8,848	9-10	664,757 18
Worcester,	149	1,597	206	49	913	120 56	51 84	13,374-11	9-7	48	254	5,841	9-14	271,037 81
Totals,	1,207	12,959	1,441	475	6,769	$149 02	$57 07	107,595-8	9-7	263	1,898	47,543	9-12	$2,556,173 23

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Barnstable,	$80,396 41	$12,125 13	$14,863 98	$1,493 85	$9,205 29	$8,109 36	$4,281 10	$130,475 12	$26,374 62	$104,100 50
Berkshire,	279,046 94	9,261 95	55,010 59	5,511 82	22,334 11	23,858 27	16,379 29	411,402 97	40,986 09	370,416 88
Bristol,	681,398 05	13,582 59	146,440 63	13,494 80	22,327 55	49,144 47	26,959 72	953,347 81	47,305 38	906,042 43
Dukes,	12,708 86	984 75	1,919 02	403 25	1,599 80	1,616 81	376 74	19.609 23	7,506 86	12,102 37
Essex,	1,000.160 87	16,355 26	196,770 29	18,518 82	35,957 09	89,810 04	31,779 06	1,392,351 43	31,409 09	1,360,942 34
Franklin,	123,436 46	18,190 05	21,586 35	1,450 56	14,446 40	11,991 71	6,094 88	197,196 41	43,614 58	153,581 83
Hampden,	618,499 33	11,255 38	129,509 48	12,634 29	24,780 23	54,370 64	22,153 23	873,202 58	47,891 62	825,310 96
Hampshire,	163,979 80	8,182 05	32,227 67	2,260 32	15,433 41	16,405 92	5,903 34	244,392 51	42,682 95	201,709 56
Middlesex,	2,067,175 55	50,347 72	433,288 42	28,977 00	65,256 44	160,476 03	79,579 36	2,885,100 52	79,449 79	2,805,650 73
Nantucket,	6,353 25	-	1,157 21	125 00	-	681 67	380 28	8,697 41	-	8,697 41
Norfolk,	592,513 88	24,397 89	127,957 99	7,087 26	33,029 29	62,969 67	26,839 64	874,795 62	28,199 93	846,595 69
Plymouth,	360,559 08	19,635 36	71,733 12	4,425 45	20,967 49	36,648 06	12,417 99	526,386 55	42,112 91	484,273 64
Suffolk,	2,871,754 74	537 15	421,815 28	58,236 74	34,595 33	104,576 39	108,706 99	3,600,222 62	61,206 29	3,539,016 33
Worcester,	1,019,742 63	51,560 12	209,059 39	17,338 31	49,638 40	85,642 52	35,470 89	1,468,452 26	86,495 04	1,381,957 22
Totals,	$9,877,725 85	$236,415 40	$1,863,339 42	$171,957 47	$349,570 83	$706,301 56	$380,322 51	$13,585,633 04	$585,235 15	$13,000,397 89

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR SCHOOL BUILDINGS.							LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		
	New school-houses.	Alterations and permanent repairs.	Ordinary repairs.	Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	Principal.	Income.	Dog tax and other income voluntarily appropriated to the public schools.
Barnstable,	$47.476 86	$4,580 29	$3,308 84	$55,365 99	-	$55,365 99	$159,466 49	$36,233 00	$1,804 33	$2.762 52
Berkshire,	10,910 86	17,798 69	16,496 34	45,205 89	$10,000 00	35,205 89	405,622 77	5,252 00	305 52	3,285 81
Bristol,	221,699 24	9,743 07	48,806 51	280,248 82	-	280,248 82	1,186,291 25	218,976 00	14,026 11	9,337 33
Dukes,	-	351 92	222 49	574 41	-	574 41	12,676 78	-	-	308 84
Essex,	272,231 02	45,893 13	68,027 23	386,151 38	507 00	385,644 38	1,746,586 72	206,466 37	8,204 69	9,355 34
Franklin,	1,500 00	12,829 83	6,111 42	20,441 25	178 23	20,263 02	173,844 85	37,513 35	1,473 52	921 82
Hampden,	288,490 57	33,986 55	26,558 66	349,035 78	379 27	348,656 51	1,173,967 47	38,314 99	1,930 69	6,300 08
Hampshire,	61,206 00	3,699 84	6,879 83	71,785 67	346 23	71,439 44	273,149 00	25,000 00	1,042 94	3,687 49
Middlesex,	393,740 96	131,681 95	120,863 44	646,286 35	15 09	646,271 26	3,451,921 99	115,636 28	4,894 44	10,467 46
Nantucket,	-	-	284 44	284 44	-	284 44	8,981 85	-	-	340 80
Norfolk,	48,496 00	36,495 03	32,217 46	117,208 49	-	117,208 49	963,804 18	45,654 59	2,243 10	7,222 58
Plymouth,	39,829 87	3,877 71	18,441 06	62,148 64	60 57	62,088 07	546,361 71	33,623 50	1,473 86	8,879 12
Suffolk,	1,034,805 22	359,565 12	11,415 54	1,405,785 88	-	1,405,785 88	4,944,802 21	127,975 00	4,885 63	54,634 47
Worcester,	233,767 45	30,380 24	48,940 21	313,087 90	504 31	312,583 59	1,694,540 81	346,451 16	10,943 78	15,206 19
Totals,	$2,654,154 05	$690,883 37	$408,573 47	$3,753,610 89	$11,990 70	$3,741,620 19	$16,742,018 08	$1,237,096 24	$53,228 61	$132,709 85

RECAPITULATION — Concluded.

COUNTIES.	Town's share of school fund income paid Jan. 25, 1906.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	Academies and Private Schools.				Estimated Amount of Tuition paid in —		Funds whose Income must be appropriated to Academies or Private Schools.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	$11,381 35	$50 00	–	–	–	–	–	–	–	–
Berkshire,	25,140 25	360 00	–	–	9	2,943	–	$12,800 00	–	–
Bristol,	10,875 16	7,287 97	3	230	27	9,068	$20,379 00	7,370 00	$833,500 00	$23,925 00
Dukes,	5,623 55	–	–	–	–	–	–	–	–	–
Essex,	12,020 93	870 00	5	722	46	13,917	126,379 50	55,788 80	748,142 51	17,231 12
Franklin,	23,227 04	92 00	3	1,163	2	247	86,826 05	700 00	1,756,353 69	31,582 06
Hampden,	16,879 62	1,118 49	2	166	25	8,738	11,905 50	19,350 00	467,186 49	11,028 79
Hampshire,	20,288 59	500 00	3	338	7	1,222	15,593 75	19,775 00	1,045,421 01	36,916 25
Middlesex,	26,513 22	6,069 70	11	1,057	59	15,589	201,160 00	133,140 00	647,773 10	11,960 74
Nantucket,	–	–	–	–	–	–	–	–	66,761 00	3,000 00
Norfolk,	11,677 12	2,343 06	3	433	17	2,324	31,300 00	122,900 00	1,266,990 00	64,951 00
Plymouth,	13,928 49	160 00	3	118	5	964	7,966 00	5,800 00	457,833 65	18,563 50
Suffolk,	–	1,356 00	4	432	93	25,438	27,608 46	460,153 52	3,249,023 95	116.023 32
Worcester,	41,824 00	1,866 07	5	704	35	10,913	47,922 17	33,807 50	1,156,911 46	35,699 94
Totals,	$219,379 32	$22,073 29	42	5,363	325	91,363	$577,040 43	$871,584 82	$11,695,896 86	$370,881 72

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of schools.	Attendance.			Time.	No. of teachers.	Expense.
		Males.	Females.	Average.	Average No. of evenings.		
Adams,	2	160	183	343	42	12	$936 77
Attleborough,	13	280	129	206	35	16	883 42
Beverly,	10	203	130	195	34	12	1,758 26
Boston,	25	5,760	4,058	7,297	95	314	127,819 61
Brockton,	5	605	167	475	48	25	3,049 76
Brookline,	4	123	155	129	21	12	2,186 86
Cambridge,	8	1,475	1,019	1,008	65	77	12,497 63
Chelsea,	1	498	309	365	50	18	1,912 16
Chicopee,	4	266	196	311	40	30	1,629 34
Clinton,	2	261	93	154	76	15	1,000 00
Dudley,	2	64	23	40	50	4	256 19
Easthampton,	11	94	90	119	30	11	398 40
Everett,	4	162	93	124	79	9	1,824 67
Fall River,	21	2,432	1,263	1,830	46	146	15,050 50
Fitchburg,	5	331	108	195	35	39	2,200 00
Framingham,	1	98	32	47	30	7	601 64
Gardner,	1	206	31	164	35	27	895 31
Gloucester,	2	90	28	65	27	6	271 50
Grafton,	4	20	16	31	38	4	346 00
Greenfield,	2	63	34	38	51	5	388 00
Haverhill,	6	468	184	456	60	34	3,008 20
Holyoke,	6	755	551	695	48	64	6,028 30
Hyde Park,	3	153	105	131	80	7	1,300 00
Lawrence,	6	1,680	1,051	1,270	73	85	11,878 24
Leominster,	1	253	70	131	54	20	1,637 75
Lowell,	20	2,932	1,580	2,422	69	184	25,216 00
Lynn,	3	1,368	749	505	38	53	3,945 87
Malden,	3	437	244	101	56	26	3,637 35
Marlborough,	6	203	12	68	49	8	308 93
Medford,	3	73	215	81	70	7	998 57
Milford,	1	238	41	128	51	10	961 00
Needham,	1	22	19	26	39	2	103 93
New Bedford,	8	1,849	1,141	1,436	40	96	9,427 01
Newburyport,	2	30	25	32	30	6	210 00
Newton,	4	117	25	113	63	8	1,468 28
North Adams,	4	241	89	238	40	17	1,801 00
North Attleborough,	1	36	27	20	36	4	212 00
Northbridge,	1	34	7	34	33	3	232 75
Northampton,	4	102	65	113	51	12	1,077 67
Orange,	1	16	18	13	30	3	127 25
Oxford,	2	54	34	52	66	4	307 25
Peabody,	1	137	9	79	59	9	620 00
Pittsfield,	8	235	108	119	47	9	846 14
Quincy,	3	485	50	165	40	12	1,533 70
Salem,	4	423	180	214	53	28	3,500 00
Somerville,	5	359	177	536	75	52	12,787 00
Southbridge,	4	149	121	214	38	12	698 96
Spencer,	1	50	10	40	40	3	216 00
Springfield,	8	1,505	849	967	83	78	14,432 64
Taunton,	9	400	118	323	38	25	2,117 00
Waltham,	3	293	109	204	47	15	1,948 00
Watertown,	1	90	-	32	60	2	180 00
Webster,	2	139	103	177	50	11	601 38
Westfield,	1	71	30	42	39	4	247 00
Woburn,	6	167	38	56	38	9	555 18
Worcester,	16	1,607	667	1,172	112	102	25,654 16
Totals,	285	30,362	16,978	25,541	50	1,813	$315,730 53

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1905–1906.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years in the institution at the end of the school year.	No. of Teachers during the Year.		Wages of Teachers per Month.		Length of each school.
							Males.	Females.	Males.	Females.	
State Industrial School for Girls, . . .	8	215	215	–	190	25	–	11	–	$25 33*	10 mos.
Lyman School for Boys at Westborough,† .	9	631	338	–	317	253	6	12	$58 33* to $100 00*	$25 00* to $66 66*	44 wks.

* And home.

† The figures are for 14 months ending Nov. 30, 1906.

GRADUATED TABLES.

In order to show the comparative standing of the towns and cities (1) in the taxes which they impose upon themselves for the support of their public schools, (2) in the ratio which these taxes bear to their respective valuations, and (3) in the ratio of the attendance upon the public schools to the whole number of children between five and fifteen, three graduated tables have been prepared.

For the sake of brevity as well as convenience of reference these tables may be named as follows: —

I. Graduated taxation table.
II. Graduated valuation table.
III. Graduated attendance table.

I. *Graduated Taxation Table.*

In this table the towns and cities are classified or ranked according to the amounts which they severally raise by local taxation for the school support of each child in the average membership of the public schools. It is the average membership that more than any other factor determines the expense of the schools, and it is the expenditure for each child in the average membership that more than any other factor determines a town's liberality in matters of school support. In some places large numbers of children between five and fifteen are in private schools; the amount raised for the public schools is correspondingly reduced. Consequently the amounts of the local tax for each child between five and fifteen in such places are relatively small. To use such amounts, however, as evidence of the economy or the parsimony of towns would be illogical and unjust.

Advantage is taken of this table to present important data not given in reports previous to the sixty-sixth. They are the amounts yielded for each child in the average membership by the local tax *plus* the State and other contributions. In the column next to the last, the amounts measure the local taxation burden for each child in the average membership. That is to say, the former column shows what the town unaided is doing for the child, the latter column what the child gets from all sources.

II. *Graduated Valuation Table.*

This table exhibits for the several towns and cities the ratios which the sums raised by taxation and expended for the support of the public schools

bear to their respective assessed valuations. For convenience of apprehension the ratio in each case is expressed as so many dollars of tax on a thousand dollars of valuation.

III. *Graduated Attendance Table.*

This table exhibits for the several towns and cities the ratio in each case of the average attendance upon the public schools to the whole number of children between five and fifteen reported in the school census. If there are no private schools, the ratio is likely to be high. If there are no private schools and at the same time an unusually large proportion of the children under five and over fifteen are attending school, the ratio may exceed even a hundred per cent. On the other hand, if children attend private schools in any considerable number, the fact is reflected in a lower ratio.

I. Graduated Taxation Table.

Table showing for the several towns and cities of the State the comparative amounts of money expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1904-5.	**1905-6.**								
3	1	Lincoln,	$7,198 50	$8,164 21	133	106	$54 12	$67 91	$77 02
1	2	Weston,	16,530 81	16,530 81	275	254	60 11	65 08	65 08
2	3	Nahant,	7,408 59	7,408 59	125	131	59 27	56 55	56 48
4	4	Brookline,	192,581 85	192,581 85	3,486	3,686	55 24	52 25	52 25
6	5	Hull,	9,137 22	9,137 22	222	180	41 16	50 76	50 76
5	6	Milton,	64,750 40	64,750 40	1,313	1,385	49 31	46 75	46 75
8	7	Wellesley,	35,738 42	35,890 92	788	827	45 35	43 21	43 40
11	8	Manchester,	17,189 15	17,189 15	462	405	37 21	42 44	42 44
37	9	Petersham,	4,551 59	5,750 24	140	109	32 51	41 76	51 93
28	10	Wrentham,	7,346 39	9,770 82	204	176	36 01	41 74	55 52
40	11	Dover,	4,383 65	5,864 05	126	106	34 79	41 36	55 32
21	12	Burlington,	1,970 03	3,031 13	63	48	31 27	41 04	63 15
7	13	Hopedale,	13,622 19	13,622 19	310	333	43 94	40 91	40 91
12	14	Cohasset,	16,905 19	17,032 82	403	432	41 95	39 13	39 43
9	15	Newton,	232,590 89	232,590 89	6,273	5,978	37 08	38 91	38 91
13	16	West Boylston,	7,505 58	9,690 04	206	196	36 43	38 29	49 44
15	17	Lancaster,	12,952 72	12,952 72	423	340	30 62	38 10	38 10
14	18	Hamilton,	9,002 98	9,309 98	286	242	31 48	37 20	38 47
26	19	Webster,	23,271 59	23,271 59	2,033	635	11 45	36 65	36 65
10	20	Falmouth,	18,951 33	19,507 83	526	525	36 03	36 10	37 16

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1904-5.	**1905-6.**								
18	21	Boston,	$3,280,199 57	$3,341,116 17	101,865	91,409	$32 20	$35 88	$36 55
17	22	Westwood,	6,248 80	7,458 11	208	176	30 04	35 50	42 38
16	23	Springfield,	392,718 15	400,821 51	12,101	11,183	32 45	35 12	35 84
20	24	Belmont,	23,665 39	23,969 70	809	676	29 25	35 01	35 46
19	25	Stockbridge,	12.329 50	12,634 87	384	353	32 11	34 93	35 79
23	26	Lexington,	29,205 56	29,858 56	836	848	34 93	34 44	35 21
92	27	Hardwick,	13,270 89	14.479 47	580	396	22 88	33 51	36 56
41	28	Bedford,	4,816 16	6,638 40	193	144	24 95	33 46	46 10
–	29	Plainville,	6,400 47	6,400 47	191	192	33 51	33 34	33 34
56	30	Wenham,	4,426 17	4,767 67	164	134	26 99	33 03	35 58
43	31	Marion,	3,985 72	5,207 64	134	121	29 74	32 94	43 04
352	32	Mt. Washington,	654 72	1,348 72	18	20	36 37	32 74	67 44
25	33	Longmeadow,	4,490 54	6,227 15	203	138	22 12	32 54	45 12
31	34	Dedham,	49,678 97	51,095 36	1,368	1,530	36 32	32 47	33 40
35	35	Waltham,	99 175 49	99,367 29	3,876	3,070	25 59	32 30	32 37
27	36	Lowell,	339,221 21	346,020 97	14,658	10,502	23 14	32 30	32 95
29	37	Cambridge,	469,257 35	476,589 36	15,858	14,606	29 59	32 13	32 63
55	38	Yarmouth,	6,262 79	9,280 56	183	195	34 22	32 12	47 59
24	39	Holyoke,	189,573 62	189,573 62	10,385	5,909	18 25	32 08	32 08
34	40	Barnstable,	21,799 14	25,232 28	629	682	34 65	31 96	36 99
49	41	Harvard,	4,363 46	6.056 16	137	137	31 85	31 85	44 21
51	42	Arlington,	52,856 92	53,973 26	1,810	1,662	29 20	31 80	32 47
30	43	Canton,	17,991 97	18,159 47	815	570	22 08	31 39	31 86
32	44	Watertown,	46,413 35	46,413 35	1,772	1,488	26 19	31 19	31 19
46	45	Groton,	11.024 93	11,123 77	345	354	31 96	31 14	31 42
38	46	Swampscott,	23.979 28	23.979 28	753	772	31 84	31 06	31 06
44	47	Beverly,	82,862 16	82,862 16	2,651	2,670	31 26	31 03	31 03
22	48	Sudbury,	5,338 01	7,338 41	160	174	33 36	30 67	42 17

65	49	Walpole,	22,086 25	23,157 37	747	729	29 57	30 30	31 77
47	50	Scituate,	13,208 58	13,702 75	431	436	30 65	30 29	31 43
66	51	Haverhill,	159,110 42	159,617 42	6,636	5,258	23 98	30 26	30 36
45	52	Winchester,	50,094 67	50,327 62	1,539	1,659	32 55	30 20	30 34
73	53	Boylston,	3,169 02	5,021 18	120	105	26 41	30 18	47 82
57	54	Worcester,	591,478 19	594,805 51	21,610	19,615	27 37	30 15	30 32
54	55	Melrose,	86,959 20	86,959 20	2,706	2,894	32 14	30 05	30 05
50	56	Malden,	185,762 29	186,136 78	7,246	6,232	25 64	29 81	29 87
48	57	Concord,	29,790 31	36,896 26	870	1,000	34 24	29 79	36 90
33	58	Fitchburg,	116,139 52	116,695 52	6,539	3,922	17 76	29 61	29 75
70	59	North Adams,	92,502 17	92,502 17	4,366	3,135	21 19	29 54	29 51
93	60	Barre,	10,472 62	11,949 99	423	356	24 76	29 42	33 57
58	61	Ware,	31,175 12	31,436 62	1,548	1,066	20 14	29 25	29 49
105	62	Lynnfield,	2,811 13	3,860 92	118	97	23 82	28 98	39 80
116	63	Bourne,	8,896 71	10,249 04	247	307	36 02	28 98	33 38
83	64	Reading,	31,998 98	33,056 24	972	1,105	32 92	28 96	29 92
64	65	Sharon,	8,763 92	10,785 95	344	303	25 48	28 92	35 60
308	66	Tolland,	663 52	1,666 41	46	23	14 42	28 85	72 45
52	67	Lawrence,	216,952 07	216,952 07	12,546	7,574	17 29	28 64	28 64
39	68	Wayland,	10,868 07	12,778 53	373	380	29 14	28 60	33 62
132	69	Tewksbury,	12,513 33	14,883 07	572	439	21 88	28 50	33 90
53	70	Chilmark,	653 52	1,298 52	39	23	16 76	28 41	56 46
80	71	Montague,	31,811 52	32,539 22	1,387	1,122	22 94	28 35	29 00
90	72	Lenox,	17,715 69	17,915 69	562	625	31 52	28 35	28 67
111	73	Southbridge,	27,026 76	27,026 76	2,113	950	12 79	28 34	28 34
60	74	Winthrop,	35,332 18	35,332 18	1,293	1,247	27 33	28 33	28 33
42	75	New Bedford,	251,350 89	255,251 40	12,887	8,879	19 50	28 31	28 75
59	76	Somerville,	321,677 00	321,677 00	11,969	11,385	26 88	28 25	28 25
77	77	Medford,	110,923 95	111,095 95	3,737	3,929	29 68	28 23	28 28
62	78	Needham,	22,194 74	22,194 74	836	791	26 55	28 06	28 06
179	79	Carver,	4,724 26	6,264 80	209	169	22 60	27 95	37 07
84	80	Gardner,	43,484 91	43,727 90	2,118	1,557	20 53	27 93	28 08
68	81	Salem,	129,748 39	129,748 39	6,832	4,683	18 99	27 71	27 71
79	82	Andover,	31,799 08	34,963 20	1,211	1,152	26 26	27 60	30 35
69	83	Littleton,	5,893 79	7,687 77	210	214	28 07	27 54	35 92
81	84	Revere,	71,421 90	71,490 61	2,759	2,605	22 26	27 42	27 44
86	85	Attleborough,	56,497 21	57,131 21	2,330	2,070	24 25	27 29	27 60
115	86	Deerfield,	7,341 40	8,672 61	346	269	21 22	27 29	32 24
101	87	Leominster,	56,053 21	56,623 21	2,543	2,057	22 04	27 25	27 53

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1904-5.	**1905-6.**								
95	88	Willbraham,	$6,597 42	$8,515 23	250	243	$26 39	$27 15	$35 04
76	89	Hyde Park,	52,409 92	52,409 92	2,697	1,933	19 43	27 11	27 11
192	90	Brewster,	2,489 79	3,384 08	116	92	21 46	27 06	36 78
72	91	Southborough,	9,018 84	11,048 23	318	334	28 36	27 00	33 08
110	92	Dracut,	13,397 96	16,010 02	626	501	21 40	26 74	31 96
75	93	Dalton,	15,180 93	16,160 33	549	574	27 65	26 45	28 15
74	94	Hingham,	22,088 05	24,031 55	698	843	31 64	26 20	28 51
87	95	Norwood,	36,438 77	36,474 27	1,370	1,392	26 60	26 18	26 20
145	96	Greenfield,	40,716 86	41,739 11	1,507	1,558	27 02	26 13	26 80
89	97	Northampton,	72,132 89	74,894 11	3,189	2,766	12 62	26 08	27 08
96	98	Westfield,	53,514 61	61,042 27	2,285	2,057	23 42	26 02	29 68
113	99	Medfield,	6,000 00	7.605 55	244	232	24 59	25 86	32 78
104	100	Lynn,	249,859 16	250,893 78	11,836	9,685	21 10	25 80	25 91
82	101	Marshfield,	6,660 30	7,992 23	257	259	25 92	25 72	30 86
119	102	Pittsfield,	100,664 21	100,664 21	4,415	3,920	22 80	25 68	25 68
107	103	Ashby,	3,172 87	5.253 05	123	124	25 80	25 59	42 36
97	104	Williamstown,	18,348 79	19,133 28	822	718	22 32	25 56	26 65
98	105	Chicopee,	59,953 15	60,057 65	3,644	2,356	16 45	25 45	25 49
61	106	Mendon,	3,789 17	5,556 57	140	149	27 07	25 43	37 29
141	107	North Andover,	20,563 38	20,563 38	834	809	24 66	25 42	25 42
94	108	West Brookfield,	4,417 61	5,764 70	159	174	27 78	25 39	33 13
158	109	Natick,	43,835 21	44,319 71	1,625	1,728	26 98	25 37	25 65
112	110	Everett,	150,629 17	150,629 17	5,671	5,947	26 56	25 33	25 33
193	111	Milford,	36,828 86	37.021 14	1,915	1,462	19 23	25 19	25 32
117	112	Ludlow,	14,442 82	15,799 51	620	574	23 29	25 16	27 53
103	113	Abington,	23,423 68	24,048 68	852	931	27 49	25 16	25 83
109	114	Taunton,	116,113 36	118,822 11	5,445	4,617	21 32	25 15	25 74
102	115	Foxborough,	13,189 41	15,205 30	516	526	25 56	25 07	28 91

335	116	Plympton,	1,402 59	2,083 70	63	56	22 26	25 05	37 21
174	117	Norton,	6,792 71	9,455 05	271	273	25 07	24 88	34 63
130	118	Princeton,	3,657 59	4,696 33	176	147	20 78	24 88	31 95
134	119	Chelmsford,	17,860 47	18,901 97	755	718	23 66	24 88	26 33
189	120	Shrewsbury,	6,652 67	8,168 66	304	268	21 88	24 82	30 48
154	121	Chelsea,	152,062 68	152,283 66	7,232	6,147	21 03	24 74	24 77
120	122	Fall River,	333,372 65	340,509 50	20,493	13,479	16 27	24 73	25 26
129	123	Framingham,	50,058 40	50,663 44	1,877	2,030	26 67	24 66	24 96
78	124	Duxbury,	5,814 57	6,983 56	235	236	24 74	24 64	29 59
143	125	Peabody,	46,219 55	46,408 55	2,423	1,876	19 08	24 64	24 74
100	126	Norwell,	5,542 55	7,832 60	227	225	24 42	24 63	34 81
210	127	Tyngsborough,	2,876 64	5,618 40	135	117	21 31	24 59	48 02
124	128	Wareham,	14,330 00	15,080 00	590	583	24 29	24 58	25 87
127	129	Wakefield,	50,745 94	52,477 63	1,937	2,067	26 20	24 55	25 39
114	130	Townsend,	6,771 79	8,869 64	268	276	25 27	24 54	32 14
123	131	Brockton,	183,983 25	184,258 71	8,072	7,512	22 79	24 49	24 53
91	132	Acton,	7,822 83	9,234 23	329	321	23 78	24 37	28 77
161	133	Franklin,	22,242 86	22,915 36	980	914	22 70	24 34	25 07
178	134	Topsfield,	2,989 15	4,072 89	116	123	25 76	24 30	33 11
177	135	Westborough,	16,496 45	16,646 89	666	679	24 77	24 30	24 52
149	136	Weymouth,	51,436 02	51,635 52	2,014	2,120	25 54	24 26	24 36
157	137	Westford,	9,591 96	11,093 45	420	397	22 84	24 16	27 94
139	138	Stoneham,	26,355 75	26,547 45	1,061	1,091	24 84	24 16	24 33
126	139	Grafton,	19,944 45	21,756 18	898	827	22 21	24 12	26 31
138	140	Plymouth,	42,807 35	42,825 60	1,813	1,776	23 61	24 10	24 11
164	141	Great Barrington,	24,650 04	26,757 54	933	1,024	26 42	24 07	26 13
198	142	Wellfleet,	3,102 94	4,197 40	123	129	25 23	24 05	32 54
135	143	North Attleborough,	30,494 32	30 507 82	1,252	1,270	24 36	24 01	24 02
136	144	Marlborough,	54,679 13	54,923 74	2,896	2,278	18 88	24 00	24 11
140	145	Adams,	39,982 07	39,982 07	2,460	1,671	16 25	23 93	23 93
99	146	Danvers,	35,145 63	35,785 85	1,334	1,473	26 35	23 86	24 36
166	147	Ashland,	7,101 00	9,157 47	256	299	27 74	23 75	30 63
186	148	Dartmouth,	13,845 37	14,604 21	689	584	20 09	23 71	25 01
108	149	Dudley,	8,460 98	9,588 02	792	360	10 68	23 50	26 63
146	150	Agawam,	9,755 54	11,229 60	482	417	20 24	23 39	26 93
165	151	Rockland,	25,914 56	26,531 56	1,038	1,109	24 97	23 37	23 92
36	152	Mattapoisett,	4,041 56	5,866 05	215	174	18 80	23 23	33 71
171	153	Orange,	23,885 17	23,885 17	1,075	1,031	22 22	23 17	23 17
144	154	Norfolk,	3,216 48	4,708 46	135	139	23 83	23 14	33 95

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.		TOWNS AND CITIES.	Amount expended for the Support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for Each Child in the Average Membership of the Public Schools by the —	
			Local tax only	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1904-5.	1905-6.								
191	155	Randolph,	$14,114 75	$15,398 99	662	610	$21 32	$23 14	$25 24
142	156	Palmer,	25,590 30	26,010 39	1,229	1,107	20 82	23 12	23 50
133	157	Braintree,	29,740 88	30,155 08	1,190	1,289	24 99	23 07	23 39
118	158	Bridgewater,	19,842 74	29,490 74	713	861	27 83	23 05	34 25
167	159	Methuen,	32,746 56	33,483 06	1,660	1,424	19 73	23 00	23 51
151	160	Clinton,	47,109 78	47,109 78	2,437	2,049	19 33	22 99	22 99
184	161	Maynard,	17,138 98	17,763 98	745	747	23 01	22 94	23 78
182	162	Stow,	3,934 25	5,921 69	175	172	22 48	22 87	34 43
153	163	Fairhaven,	16,862 87	17,903 63	773	704	21 81	22 79	24 19
163	164	Amesbury,	24,034 48	24,276 48	1,540	1,057	15 61	22 74	23 06
128	165	Middleborough,	27,505 15	29,761 15	1,180	1,211	23 31	22 71	24 58
155	166	Spencer,	23,601 81	24,252 06	1,345	1,044	17 55	22 61	23 23
304	167	Richmond,	1,940 43	3,281 00	89	86	21 80	22 56	38 15
256	168	Warren,	13,446 68	16,098 94	801	597	16 79	22 52	26 97
203	169	Hopkinton,	9,614 34	11,471 57	407	428	23 62	22 46	26 80
148	170	Stoughton,	17,993 69	18,881 09	985	802	18 28	22 44	23 54
338	171	Erving,	4,268 24	5,645 33	176	191	24 25	22 35	29 56
159	172	Kingston,	9,016 52	9,016 52	363	405	24 84	22 26	22 26
63	173	Dunstable,	1,330 17	2,822 17	90	60	14 78	22 17	47 04
202	174	Athol,	24,895 84	26,227 84	1,195	1,124	20 83	22 15	23 33
175	175	Northborough,	7,741 32	9,971 83	368	352	21 04	21 99	28 33
195	176	North Brookfield,	9,536 70	11,202 03	541	436	17 63	21 87	25 69
194	177	Hudson,	21,847 58	21,955 34	1,046	1,001	20 89	21 83	21 93
122	178	North Reading,	3,031 74	5,194 04	138	139	21 97	21 81	37 37
85	179	Sunderland,	2,438 72	4,797 92	150	112	16 26	21 77	42 84
168	180	West Newbury,	4,850 77	6,687 57	223	223	21 75	21 75	29 99
185	181	Hanover,	7,732 32	8,770 99	333	358	23 22	21 60	24 50
180	182	Newbury,	4,399 10	5,958 35	200	204	22 00	21 56	29 21

196	183	Pepperell,	14,059 10	15,468 09	593	655	23 71	21 46	23 62
344	184	Whately,	1,694 72	3,615 03	105	79	16 14	21 45	45 76
260	185	Granby,	2,850 69	4,772 53	127	133	22 45	21 43	35 88
188	186	Sangus,	27,705 23	28,104 73	1,301	1,294	21 30	21 41	21 72
172	187	Leicester,	13,603 34	15,466 34	620	636	21 94	21 39	24 32
236	188	Sturbridge,	6,760 46	8,258 45	332	317	20 36	21 33	26 05
106	189	Billerica,	10,533 15	11,865 60	508	494	20 73	21 32	24 02
228	190	Northfield,	4,782 26	5,994 14	253	225	18 90	21 25	26 64
205	191	Sheffield,	4,902 49	6,753 03	241	231	20 34	21 22	29 23
200	192	Whitman,	25,575 23	26,352 29	1,155	1,206	22 14	21 21	21 85
245	193	Lee,	12,192 29	14,007 02	717	576	17 00	21 17	24 32
88	194	Cottage City,	4,349 67	4,662 17	244	206	17 83	21 12	22 63
221	195	South Hadley,	17,768 88	19,687 77	769	844	23 11	21 05	23 33
173	196	Marblehead,	25,984 83	25,984 83	1,125	1,239	23 10	20 97	20 97
224	197	Swansea,	5,405 15	7,419 14	303	258	17 84	20 95	28 76
169	198	Merrimac,	7,658 65	10,006 98	321	367	23 86	20 87	27 27
197	199	Quincy,	115,000 00	115,236 50	6,286	5,518	18 29	20 84	20 88
216	200	Gloucester,	95,621 85	95,621 85	4,597	4,599	20 80	20 79	20 79
226	201	Mansfield,	16,546 60	18,366 09	817	797	20 25	20 76	23 04
296	202	Bernardston,	2,567 93	4,945 82	127	124	20 22	20 71	39 89
209	203	Uxbridge,	14,587 33	15,433 57	741	705	19 69	20 69	21 89
204	204	Woburn,	58,171 09	58,784 09	3,388	2,816	17 16	20 66	20 88
324	205	Royalston,	2,625 60	4,259 37	136	128	19 31	20 51	33 28
183	206	Amherst,	17,072 95	18,956 70	769	833	22 20	20 50	22 76
213	207	West Springfield,	32,073 23	34,162 48	1,573	1,575	20 39	20 36	21 69
271	208	Holden,	8,909 96	10,670 18	508	440	17 54	20 25	24 25
233	209	Brookfield,	8,778 64	10,521 32	420	434	20 90	20 23	24 24
199	210	Easton,	19,999 25	27,875 51	937	990	21 34	20 20	28 16
181	211	Sherborn,	3,870 03	5,158 01	220	192	17 59	20 16	26 86
67	212	Boxford,	1,611 31	3,596 72	103	76	15 64	20 12	47 33
208	213	Northbridge,	26,990 22	26,990 22	1,386	1,347	19 47	20 04	20 04
262	214	Millbury,	14,912 94	15,989 39	935	746	15 95	19 99	21 43
230	215	East Bridgewater,	10,673 50	12,122 57	497	534	21 48	19 99	22 70
223	216	Lunenburg,	3,892 88	5,536 91	226	195	17 23	19 96	28 39
294	217	Dana,	2,424 94	4,184 17	133	122	18 23	19 88	34 30
257	218	Becket,	2,420 96	4,295 18	159	122	15 23	19 84	35 21
150	219	Bellingham,	5,015 12	6,761 40	309	253	16 23	19 82	26 72
222	220	New Braintree,	1,367 66	3,057 51	89	69	15 37	19 82	44 31
131	221	Bolton,	2,182 76	4,570 34	101	111	21 61	19 66	41 17

Table showing the comparative amounts of money expended for the support, etc. — Continued.

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			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1904-5.	**1905-6.**								
249	222	Oxford,	$10,848 59	$12,456 88	531	552	$20 43	$19 65	$22 57
207	223	Cheshire,	3,417 85	5,437 35	226	174	15 12	19 64	31 25
239	224	Nantucket,	8,697 41	8,697 41	412	443	21 11	19 63	19 63
220	225	Newburyport,	39,583 05	42,036 50	2,421	2,020	16 35	19 60	20 81
232	226	Hadley,	5,246 54	8,534 27	282	269	18 60	19 50	31 73
238	227	Upton,	6,025 43	7,326 70	337	309	17 88	19 50	23 71
162	228	Chatham,	4,989 49	6,777 26	233	258	21 41	19 34	26 27
339	229	West Stockbridge,	2,683 73	4,726 46	182	139	14 75	19 31	34 00
211	230	Wilmington,	7,202 58	8,926 57	350	375	20 58	19 21	23 80
240	231	Holliston,	9,271 80	11,093 72	437	483	21 22	19 20	22 93
309	232	Rochester,	2,632 30	4,108 19	159	138	16 56	19 07	29 77
267	233	Georgetown,	5,092 69	6,495 99	295	267	17 26	19 07	24 33
231	234	Rockport,	15,290 94	15,290 94	834	802	18 33	19 07	19 07
187	235	Douglas,	6,080 17	7,318 39	388	319	15 67	19 06	22 94
244	236	Monson,	12,936 82	15,340 31	644	682	20 09	18 97	22 49
259	237	Dennis,	6,725 90	8,445 38	293	355	22 96	18 95	23 79
268	238	Brimfield,	2,286 63	3 839 22	145	121	15 77	18 90	31 73
225	239	Shelburne,	4,518 67	6,929 31	224	240	20 17	18 83	28 87
291	240	Charlton,	6,421 00	8,021 16	375	345	17 12	18 61	23 25
237	241	Russell,	2,319 50	3,679 76	178	126	13 03	18 41	29 20
265	242	Warwick,	1,834 13	3,337 27	124	100	14 79	18 34	33 37
201	243	Medway,	7,438 70	9,946 47	411	407	18 10	18 28	24 44
170	244	Edgartown,	3,100 33	4,630 33	173	170	17 92	18 24	27 24
247	245	Shirley,	4,613 06	6,685 80	289	253	15 96	18 23	26 43
217	246	Groveland,	7,729 51	9,324 82	390	424	19 82	18 23	21 99
229	247	Conway,	3,953 77	5,507 95	215	217	18 39	18 22	25 38
252	248	Prescott,	1,072 88	2,843 18	49	59	21 90	18 18	48 19
261	249	Rutland,	4,181 38	5,932 12	237	231	17 64	18 10	25 68

215	250	West Bridgewater,	5,552 77	7,203 24	328	307	16 93	18 09	23 46
327	251	Enfield,	2,873 35	4,656 89	169	159	17 00	18 07	29 29
263	252	Hubbardston,	3,613 00	5,298 00	207	200	17 45	18 07	26 49
266	253	Rehoboth,	5,201 61	6,847 94	334	288	15 57	18 06	23 78
241	254	Dighton,	5,346 07	7,605 97	345	296	15 50	18 06	25 69
176	255	Carlisle,	1,330 91	2,532 61	98	74	13 58	17 99	34 25
289	256	Westhampton,	1,438 67	2,731 47	105	80	13 70	17 98	34 14
269	257	Millis,	4,166 73	5,897 15	241	232	17 29	17 96	25 42
322	258	Hampden,	1,812 01	3,407 24	98	101	18 49	17 94	33 74
274	259	Ayer,	8,450 52	10,347 07	445	472	18 99	17 90	21 92
278	260	Somerset,	7,434 07	8,676 39	458	416	16 23	17 87	20 86
272	261	New Salem,	2,030 87	4,394 49	101	114	20 11	17 81	38 55
298	262	Chesterfield,	1,333 83	2,842 18	86	75	15 51	17 78	37 90
137	263	Sandwich,	4,302 73	6,469 12	222	242	19 38	17 78	26 57
242	264	New Marlborough,	3,174 64	4,543 49	185	179	17 16	17 74	25 38
251	265	Easthampton,	19,951 08	21,332 90	1,128	1,128	17 69	17 69	18 91
206	266	Sterling,	3,552 51	5,833 29	201	201	17 67	17 67	29 02
219	267	Westport,	7,358 61	8,735 95	506	417	14 54	17 65	20 95
288	268	Greenwich,	1,180 00	2,559 58	91	67	12 97	17 61	38 20
280	269	Provincetown,	14,272 52	16,072 20	888	816	16 07	17 49	19 70
282	270	Ashburnham,	5,827 08	6,090 34	363	338	16 05	17 24	18 01
255	271	Pembroke,	2,963 02	4,375 03	179	172	16 55	17 23	25 44
287	272	Huntington,	5,529 10	7,408 91	299	322	18 49	17 17	23 01
258	273	Acushnet,	3,261 09	5,491 59	232	190	14 06	17 16	28 90
243	274	Ipswich,	13,593 82	16,415 32	901	792	15 09	17 16	20 73
283	275	Salisbury,	3,913 03	4,860 29	275	228	14 23	17 16	21 32
273	276	Templeton,	9,606 61	11,326 94	679	561	14 15	17 12	20 19
227	277	Chester,	4,344 27	6,650 51	241	254	18 03	17 10	26 18
147	278	Tisbury,	3,117 46	4,692 31	187	183	16 67	17 04	25 64
281	279	Essex,	5,876 11	7,580 00	357	346	16 46	16 98	21 91
235	280	Middleton,	2,200 05	3,623 29	157	131	14 01	16 79	27 66
156	281	Hatfield,	3,920 59	5,770 30	265	235	14 79	16 68	24 55
279	282	Westminster,	3,981 38	5,423 47	238	242	16 73	16 45	22 41
253	283	Ashfield,	2,596 13	5,016 50	152	158	17 08	16 45	31 75
270	284	Paxton,	1,200 00	2,825 96	94	73	12 77	16 44	38 71
284	285	Blackstone,	17,033 77	17,540 52	1,152	1,038	14 79	16 41	16 90
300	286	Charlemont,	2,369 93	4,837 89	162	147	14 63	16 12	32 91
250	287	Holbrook,	7,570 95	9,185 54	434	470	17 44	16 11	19 54
276	288	Avon,	5,550 39	7,236 64	319	345	17 40	16 09	20 98

Table showing the comparative amounts of money expended for the support, etc. — Concluded.

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1904-5.	**1905-6.**								
310	289	Blandford,	$1,782 43	$3,413 89	133	111	$13 40	$16 06	$30 75
345	290	Otis,	1,091 81	2,265 56	79	68	13 82	16 06	33 32
218	291	Orleans,	3,059 22	5,361 08	170	191	18 00	16 02	28 07
299	292	Winchendon,	16,927 90	25,507 13	1,098	1,077	15 42	15 72	23 68
303	293	Halifax,	1,000 00	2,262 32	77	64	12 99	15 63	35 35
121	294	Montgomery,	649 15	2,213 63	48	42	13 52	15 46	52 71
254	295	Harwich,	6,087 81	7,998 06	396	394	15 37	15 45	20 30
264	296	Hinsdale,	3,974 42	5,842 18	255	258	15 59	15 40	22 64
297	297	Buckland,	3,555 10	6,039 37	274	231	12 97	15 39	26 14
336	298	Berlin,	2,443 35	4,556 10	173	159	14 12	15 37	28 65
319	299	Granville,	2,319 66	4,109 33	150	152	15 46	15 33	27 03
295	300	Auburn,	4,382 07	6,665 67	398	286	11 01	15 32	23 31
305	301	Rowley,	2,984 07	4,620 43	242	196	12 33	15 22	23 57
343	302	Leverett,	1,678 08	3,017 32	117	112	14 34	14 98	26 94
292	303	Hancock,	934 08	2,348 00	75	63	12 45	14 83	37 27
307	304	Sutton,	7,892 49	9,624 70	635	539	12 43	14 64	17 86
285	305	Shutesbury,	774 61	2,088 27	64	53	12 10	14 62	39 40
71	306	Tyringham,	291 37	1,509 56	41	20	7 11	14 57	75 48
320	307	Florida,	1,017 61	2,285 55	79	70	12 88	14 54	32 65
277	308	Hanson,	3,218 65	5,098 14	237	222	13 58	14 50	22 96
312	309	Colrain,	4,361 84	7,023 96	355	307	12 29	14 21	22 88
246	310	Phillipston,	958 88	2,607 45	64	68	14 98	14 10	38 34
234	311	Savoy,	1,169 51	2 853 27	84	83	13 92	14 09	34 38
160	312	Lanesborough,	1,604 48	3,490 34	134	115	11 97	13 98	30 35
334	313	Worthington,	1,612 57	3,449 02	111	116	14 53	13 94	29 73
328	314	Monterey,	876 71	2,216 41	90	63	9 74	13 92	35 18
152	315	Rowe,	980 45	2,399 71	99	71	9 90	13 81	33 80
301	316	Williamsburg,	5,338 06	8,401 57	364	387	14 67	13 79	21 71

286	317	Raynham,	2,808	68	5,228	92	257	204	10 93	13 77	25 63
332	318	Freetown,	3,320	23	4,694	51	259	242	12 82	13 72	19 40
214	319	Monroe,	738	91	1,873	50	50	54	14 78	13 68	34 69
313	320	Southampton,	2,043	05	4,082	96	167	151	12 23	13 53	27 04
318	321	Southwick,	2,391	00	5,015	43	187	180	12 79	13 28	27 86
290	322	East Longmeadow,	3,833	59	7,157	03	311	289	12 33	13 27	24 76
306	323	Belchertown,	5,449	20	7,948	53	424	411	12 85	13 26	19 34
302	324	Eastham,	955	00	2,542	63	78	73	12 26	13 10	34 83
325	325	Egremont,	1,100	00	3,036	97	98	84	11 22	13 10	36 15
311	326	Windsor,	1,103	42	2,741	34	93	86	11 86	12 83	31 88
340	327	Holland,	215	00	868	31	18	17	11 94	12 65	51 08
330	328	Boxborough,	606	32	2,302	47	51	48	11 89	12 63	47 97
190	329	Hawley,	731	82	2,440	85	83	58	8 82	12 62	42 08
321	330	Truro,	1,717	30	3,408	14	149	137	11 53	12 53	24 88
333	331	Leyden,	874	72	2,557	01	72	70	12 15	12 50	35 53
314	332	Seekonk,	2,863	73	4,934	67	255	232	11 23	12 34	21 27
316	333	Gill,	1,492	54	3,393	14	167	122	8 94	12 23	27 81
329	334	Cummington,	1,601	95	3,759	39	133	132	12 05	12 14	28 48
317	335	Wendell,	849	25	2,353	90	93	70	9 13	12 13	33 63
212	336	Lakeville,	1,497	20	4,115	43	146	126	10 25	11 88	32 66
346	337	Oakham,	983	88	2,377	99	87	83	11 31	11 85	28 65
341	338	Plainfield,	750	00	1,889	45	82	65	9 15	11 54	29 07
275	339	Sandisfield,	969	68	2,494	31	101	86	9 60	11 28	29 00
342	340	West Tisbury,	680	39	2,415	91	54	62	12 60	10 97	38 97
315	341	Washington,	646	31	1,997	29	72	59	8 98	10 95	33 85
293	342	Wales,	1,048	50	2,402	00	122	98	8 59	10 70	24 51
248	343	Alford,	326	66	1,524	59	49	31	6 67	10 54	49 18
323	344	Heath,	734	19	2,151	62	61	70	12 04	10 49	30 74
331	345	Peru,	524	00	1,958	75	68	50	7 71	10 48	39 18
348	346	Clarksburg,	1,968	56	4,085	83	265	196	7 43	10 04	20 85
326	347	Mashpee,	486	86	1,550	06	54	51	9 02	9 55	30 39
344	348	Berkley,	1,167	76	3,286	20	150	141	7 79	8 28	23 31
125	349	New Ashford,	57	75	610	61	8	8	7 22	7 22	76 33
347	350	Goshen,	344	50	1,838	45	54	48	6 38	7 18	38 30
350	351	Middlefield,	655	87	2,521	47	101	100	6 49	6 56	25 21
337	352	Pelham,	367	79	2,074	32	93	73	3 95	5 04	28 42
351	353	Gosnold,	75	00	619	60	18	18	4 17	4 17	34 42
353	354	Gay Head,	126	00	1,290	39	39	39	3 23	3 23	33 09

Graduated Taxation Table.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	COUNTIES.	Amount expended for the support of the Public Schools from the —		Number of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for each Child in the Average Membership of the Public Schools by the —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1905-1906.								
1	Suffolk,	$3,539,016 33	$3,600,222 62	113,149	101,408	$31 28	$34 90	$35 50
2	Norfolk,	846,595 69	874,795 62	29,622	28,101	28 58	31 03	31 13
3	Hampden,	825,310 96	873,202 58	35,093	27,755	23 52	29 74	31 46
4	Middlesex,	2,805,650 73	2,885,100 52	104,214	95,450	26 92	29 39	30 23
5	Worcester,	1,381,957 22	1,468,452 26	64,234	52,602	21 51	26 27	27 92
6	Essex,	1,360,942 34	1,392,351 43	65,269	52,773	20 85	25 79	26 38
7	Bristol,	906,042 43	953,347 81	48,993	36,383	18 49	24 90	26 20
8	Berkshire,	370,416 88	411,402 97	17,899	14,899	20 69	24 86	27 61
9	Plymouth,	484,273 64	526,386 55	20,423	20,214	23 71	23 96	26 04
10	Barnstable,	104,100 50	130,475 12	4,307	4,447	24 17	23 41	29 34
11	Franklin,	153,581 83	197,196 41	7,539	6,905	20 37	22 24	28 56
12	Hampshire,	201,709 56	244,392 51	10,405	9,519	19 39	21 19	25 67
13	Nantucket,	8,697 41	8,697 41	412	443	21 11	19 63	19 63
14	Dukes,	12,102 37	19,609 23	754	701	16 05	17 26	27 97

AGGREGATE FOR THE STATE.

State,	$13,000,397 89	$13,585,633 04	522,313	451,600	$24 89	$28 79	$30 08

II. Graduated Valuation Table.

A graduated table in which all the towns in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1905–1906.

For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
1	1	West Boylston, .	$11 29	47	48	Templeton, .	$6 67
4	2	Huntington, .	9 75	78	49	Rehoboth, . .	6 66
-	3	Plainville, . .	9 12	49	50	Gardner, . .	6 65
6	4	Grafton, . .	9 11	58	51	Ashby, . .	6 58
3	5	Abington, . .	9 04	25	52	Danvers, . .	6 58
69	6	Hardwick, . .	8 04	95	53	Natick, . .	6 56
12	7	Montague, . .	7 83	94	54	Millbury, . .	6 51
14	8	Palmer, . .	7 77	118	55	Wilbraham, .	6 54
62	9	Clarksburg, .	7 70	88	56	Somerset, . .	6 48
9	10	Warren, . .	7 63	26	57	New Salem, .	6 46
16	11	Monson, . .	7 62	140	58	Barre, . .	6 44
30	12	Mt. Washington,	7 43	27	59	Middleborough,	6 41
13	13	Rockland, . .	7 42	79	60	Mansfield, . .	6 40
31	14	Provincetown, .	7 40	65	61	E. Bridgewater, .	6 38
38	15	Weymouth, .	7 39	70	62	Leicester, . .	6 36
57	16	Blackstone, .	7 38	36	63	Merrimac, . .	6 36
11	17	Groveland, .	7 31	113	64	Lee, . . .	6 35
8	18	E. Longmeadow,	7 17	151	65	Westhampton, .	6 35
7	19	Wrentham, .	7 14	29	66	Bellingham, .	6 35
18	20	Ware, . .	7 09	45	67	Pepperell, . .	6 34
250	21	W. Stockbridge,	7 04	82	68	Methuen, . .	6 32
41	22	Colrain, . .	7 04	56	69	Ashburnham, .	6 32
21	23	Northbridge, .	7 03	76	70	Holden, . .	6 29
35	24	South Hadley, .	7 03	84	71	Sutton, . .	6 27
68	25	Boylston, . .	7 02	20	72	Belchertown, .	6 25
32	26	Randolph, . .	7 01	39	73	Prescott, . .	6 24
127	27	Tewksbury, .	6 99	73	74	Southborough, .	6 24
23	28	N. Attleborough,	6 98	80	75	Dracut, . .	6 24
28	29	Orange, . .	6 98	55	76	Foxborough, .	6 24
50	30	Sturbridge, .	6 96	96	77	North Adams, .	6 22
22	31	Brookfield, .	6 93	37	78	Bridgewater, .	6 21
33	32	Hudson, . .	6 92	103	79	Franklin, . .	6 21
77	33	Adams, . .	6 91	63	80	Kingston, . .	6 18
186	34	Dana, . .	6 86	72	81	Westfield, . .	6 13
54	35	Reading, . .	6 83	93	82	Wakefield, .	6 12
46	36	Norton, . .	6 82	87	83	Avon, . .	6 11
43	37	Everett, . .	6 79	60	84	Charlemont, .	6 09
24	38	Chester, . .	6 78	188	85	Bernardston, .	6 09
98	39	Ashland, . .	6 78	74	86	Saugus, . .	6 08
2	40	Savoy, . .	6 77	126	87	Chelsea, . .	6 06
34	41	Norwell, . .	6 75	64	88	Williamstown, .	6 04
52	42	Florida, . .	6 73	67	89	Littleton, . .	6 04
190	43	Petersham, .	6 73	71	90	Greenfield, .	6 01
15	44	Hinsdale, . .	6 72	135	91	Holliston, . .	6 00
19	45	Norwood, . .	6 72	61	92	Dudley, . .	5 99
90	46	Oxford, . .	6 69	66	93	Walpole, . .	5 99
40	47	Spencer, . .	6 68	115	94	Leominster, .	5 98

For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
89	95	Braintree,	$5 97	42	156	Sunderland,	$5 29
165	96	Tyngsborough,	5 97	164	157	Warwick,	5 28
83	97	Dighton,	5 95	155	158	Easthampton,	5 28
86	98	Chicopee,	5 95	182	159	Westborough,	5 28
312	99	Erving,	5 94	268	160	Royalston,	5 26
75	100	Mendon,	5 94	85	161	Harwich,	5 25
59	101	Whitman,	5 93	136	162	Attleborough,	5 24
53	102	Holbrook,	5 91	159	163	Sheffield,	5 22
102	103	Clinton,	5 91	172	164	Medford,	5 22
120	104	Haverhill,	5 90	201	165	Arlington,	5 21
51	105	Williamsburg,	5 89	138	166	W. Brookfield,	5 21
117	106	Wilmington,	5 89	205	167	Acton,	5 19
91	107	Conway,	5 88	48	168	Orleans,	5 19
144	108	Chelmsford,	5 88	176	169	Peabody,	5 18
124	109	Westford,	5 87	133	170	Douglas,	5 17
112	110	Fairhaven,	5 86	180	171	Georgetown,	5 17
111	111	Hopkinton,	5 86	163	172	Buckland,	5 16
146	112	Athol,	5 84	97	173	Chatham,	5 14
99	113	Northborough,	5 83	219	174	Worthington,	5 14
119	114	Dennis,	5 83	149	175	Cummington,	5 13
134	115	Revere,	5 82	259	176	Charlton,	5 10
218	116	Granby,	5 81	158	177	Dalton,	5 03
110	117	Rutland,	5 80	193	178	Rockport,	5 01
123	118	Millis,	5 80	216	179	Deerfield,	4 97
109	119	Milford,	5 77	153	180	Hingham,	4 97
264	120	Richmond,	5 76	196	181	Ayer,	4 97
161	121	Granville,	5 76	212	182	Shirley,	4 96
130	122	Uxbridge,	5 75	320	183	Otis,	4 94
137	123	Southbridge,	5 75	160	184	Needham,	4 93
128	124	Malden,	5 75	168	185	Cheshire,	4 91
122	125	North Brookfield,	5 73	208	186	Lexington,	4 90
101	126	Brockton,	5 72	184	187	Worcester,	4 89
187	127	Brimfield,	5 70	44	188	Monroe,	4 87
132	128	Melrose,	5 67	302	189	Hampden,	4 86
121	129	Northampton,	5 66	173	190	Springfield,	4 85
106	130	Hubbardston,	5 66	232	191	Shrewsbury,	4 85
157	131	Townsend,	5 65	221	192	Maynard,	4 82
108	132	Marlborough,	5 62	231	193	Gt. Barrington,	4 81
5	133	Rowe,	5 57	162	194	Acushnet,	4 79
142	134	Essex,	5 56	17	195	Hawley,	4 76
125	135	Hanover,	5 56	116	196	Heath,	4 76
92	136	Upton,	5 56	198	197	Stow,	4 76
279	137	Leverett,	5 55	200	198	Lowell,	4 74
129	138	West Springfield,	5 54	156	199	Dunstable,	4 73
104	139	Agawam,	5 53	202	200	Winchester,	4 73
152	140	Westminster,	5 53	237	201	Swansea,	4 72
114	141	N Marlborough,	5 52	204	202	Amherst,	4 71
147	142	Pittsfield,	5 49	253	203	Rochester,	4 71
81	143	Medway,	5 48	179	204	Truro,	4 71
195	144	Winchendon,	5 46	178	205	Lawrence,	4 69
143	145	Stoughton,	5 46	183	206	West Newbury,	4 63
131	146	Somerville,	5 44	197	207	Canton,	4 63
181	147	Ludlow,	5 41	220	208	Salisbury,	4 62
145	148	Woburn,	5 41	241	209	North Andover,	4 61
100	149	Wayland,	5 39	207	210	Hadley,	4 60
170	150	Andover,	5 39	174	211	Fitchburg,	4 60
148	151	Concord,	5 39	217	212	Holyoke,	4 54
166	152	Stoneham,	5 38	215	213	Norfolk,	4 54
154	153	Framingham,	5 34	10	214	Montgomery,	4 53
150	154	Taunton,	5 34	105	215	Windsor,	4 52
175	155	Becket,	5 32	229	216	Cambridge,	4 52

For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
261	217	Brewster,	$4 50
210	218	Quincy,	4 50
206	219	Amesbury,	4 49
236	220	Chesterfield,	4 48
304	221	Berlin,	4 48
239	222	Plymouth,	4 48
139	223	Bolton,	4 48
177	224	Westport,	4 47
249	225	Gloucester,	4 47
194	226	Shelburne,	4 47
230	227	Dedham,	4 46
171	228	North Reading,	4 46
227	229	Lynn,	4 45
192	230	Auburn,	4 45
234	231	Salem,	4 44
191	232	Ashfield,	4 41
211	233	Greenwich,	4 40
242	234	Barnstable,	4 40
185	235	Sudbury,	4 40
141	236	Sandwich,	4 38
294	237	Dover,	4 37
235	238	Sharon,	4 32
189	239	Peru,	4 31
238	240	Waltham,	4 31
226	241	Leyden,	4 30
209	242	Billerica,	4 28
272	243	Dartmouth,	4 27
243	244	Belmont,	4 22
348	245	Plympton,	4 22
240	246	Wareham,	4 21
287	247	Plainfield,	4 19
284	248	Blandford,	4 18
258	249	Southampton,	4 13
225	250	Easton,	4 12
283	251	Enfield,	4 09
245	252	Fall River,	4 08
257	253	Hyde Park,	4 07
266	254	Southwick,	4 06
169	255	W. Bridgewater,	4 05
285	256	Freetown,	4 04
289	257	Rowley,	4 02
222	258	Sherborn,	4 00
256	259	Beverly,	3 98
255	260	Lunenburg,	3 96
260	261	Harvard,	3 96
346	262	Whately,	3 94
293	263	Lynnfield,	3 91
248	264	Marshfield,	3 91
282	265	Medfield,	3 91
246	266	New Bedford,	3 90
262	267	Bedford,	3 90
213	268	Sterling,	3 89
286	269	Tolland,	3 87
306	270	Northfield,	3 86
278	271	Webster,	3 86
270	272	Lancaster,	3 85
233	273	Russell,	3 78
247	274	Raynham,	3 77
299	275	Princeton,	3 76
277	276	Watertown,	3 75
290	277	Groton,	3 75
107	278	Wales,	$3 74
254	279	Winthrop,	3 71
223	280	Longmeadow,	3 70
273	281	Newburyport,	3 63
244	282	Shutesbury,	3 62
281	283	Marblehead,	3 61
280	284	Newton,	3 60
267	285	Newbury,	3 59
301	286	Lenox,	3 57
224	287	Edgartown,	3 57
251	288	Gill,	3 56
309	289	Gay Head,	3 56
265	290	Scituate,	3 54
271	291	Ipswich,	3 52
252	292	Wendell,	3 50
275	293	Middlefield,	3 50
288	294	Stockbridge,	3 49
314	295	Yarmouth,	3 40
308	296	New Braintree,	3 40
323	297	Burlington,	3 38
167	298	Lanesborough,	3 37
269	299	Phillipston,	3 36
291	300	Paxton,	3 35
317	301	Bourne,	3 33
295	302	Hancock,	3 30
263	303	Carlisle,	3 25
310	304	Monterey,	3 23
199	305	Sandisfield,	3 16
315	306	Halifax,	3 11
311	307	Hamilton,	3 08
303	308	Pembroke,	3 08
296	309	Middleton,	3 07
305	310	Duxbury,	3 01
322	311	Wellesley,	3 00
316	312	Milton,	2 98
324	313	Weston,	2 98
341	314	Carver,	2 97
321	315	Swampscott,	2 94
325	316	Topsfield,	2 94
338	317	Lincoln,	2 87
331	318	Wellfleet,	2 86
276	319	Hatfield,	2 81
344	320	Oakham,	2 81
332	321	Berkley,	2 81
307	322	Eastham,	2 73
327	323	Westwood,	2 72
319	324	Hopedale,	2 70
329	325	Seekonk,	2 67
340	326	Nantucket,	2 65
333	327	Chilmark,	2 62
334	328	Boston,	2 60
297	329	Mashpee,	2 58
336	330	Cohasset,	2 57
342	331	Holland,	2 55
298	332	Mattapoisett,	2 55
203	333	Hanson,	2 53
335	334	Marion,	2 53
330	335	Boxborough,	2 48
328	336	Cottage City,	2 47
339	337	Egremont,	2 45
337	338	Falmouth,	2 41

For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	For 1904-1905, by the State valuation of 1904.	For 1905-1906, by the State valuation of 1905.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.
214	339	Lakeville,	$2 39	228	347	Pelham,	$1 86
313	340	Tisbury,	2 37	350	348	West Tisbury,	1 61
300	341	Goshen,	2 17	351	349	Manchester,	1 57
349	342	Wenham,	2 15	343	350	Boxford,	1 48
345	343	Brookline,	2 12	352	351	Nahant,	1 34
274	344	Washington,	2 08	326	352	Tyringham,	1 21
292	345	Alford,	2 07	318	353	New Ashford,	1 08
347	346	Hull,	1 94	353	354	Gosnold,	0 22

Graduated Valuation Table.

Showing the different counties in the State, numerically arranged, according to the proportion of their taxable property appropriated for the support of public schools for the year 1905–1906.

For 1905-1906, by the State valuation of 1905.	COUNTIES.	Amount appropriated to the support of public schools for each thousand dollars of valuation.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.	Valuation of 1905.
1	Franklin,	$5 99	$153,581 83	$25,654,709
2	Hampshire,	5 61	201,709 56	35,929,858
3	Berkshire,	5 42	370,416 88	68,341,719
4	Worcester,	5 21	1,381,957 22	263,324,152
5	Plymouth,	5 11	484,273 64	94,802,978
6	Hampden,	5 05	825,310 96	163,498,342
7	Middlesex,	4 92	2,805,650 73	570,177,989
8	Essex,	4 44	1,360,942 34	306,812,624
9	Bristol,	4 38	906,042 43	206,909,312
10	Barnstable,	3 90	104,100 50	26,674,131
11	Norfolk,	3 59	846,595 69	235,500,546
12	Suffolk,	2 71	3,539,016 33	1,306,348,979
13	Nantucket,	2 65	8,697 41	3,283,002
14	Dukes,	2 42	12,102 37	4,996,822

AGGREGATE FOR STATE.

State,	$3 92	$13,000,397 89	$3,312,255,163

III. Graduated Attendance Table.

In which all the towns in the State are numerically arranged according to the ratio of the AVERAGE ATTENDANCE *of children upon the public schools to the whole number of children in town between 5 and 15 years of age, for the year 1905–1906.*

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
1	Dennis,	293	332	1.13	41	E. Bridgewater,	497	493	.99
2	Bourne,	247	279	1.13	42	Wilmington,	350	347	.99
3	Bridgewater,	713	800	1.12	43	Yarmouth,	183	181	.99
4	Hingham,	698	779	1.12	44	Ayer,	445	440	.99
5	Ashland,	256	285	1.11	45	Erving,	176	174	.99
6	Prescott,	49	53	1.08	46	Sndbury,	160	158	.99
7	Merrimac,	321	345	1.07	47	W. Brookfield,	159	157	.99
8	Concord,	870	934	1.07	48	Chatham,	233	230	.99
9	Heath,	61	64	1.05	49	Whitman,	1,155	1,140	.99
10	Reading,	972	1,014	1.04	50	Williamsburg,	364	359	.99
11	Holliston,	437	455	1.04	51	Mendon,	140	138	.99
12	Dedham,	1,368	1,423	1.04	52	Pepperell,	593	584	.98
13	Kingston,	363	376	1.04	53	Weymouth,	2,014	1,974	.98
14	Danvers,	1,334	1,373	1.03	54	New Salem,	101	99	.98
15	Orleans,	170	174	1.02	55	Monroe,	50	49	.98
16	Shelburne,	224	229	1.02	56	Monson,	644	631	.98
17	Abington,	852	870	1.02	57	Framingham,	1,877	1,835	.98
18	West Tisbury,	54	55	1.02	58	Dalton,	549	537	.98
19	Marblehead,	1,125	1,142	1.02	59	Brookline,	3,486	3,401	.98
20	South Hadley,	769	779	1.01	60	Easton,	937	913	.97
21	Melrose,	2,706	2,740	1.01	61	Ashfield,	152	148	.97
22	Avon,	319	323	1.01	62	Worthington,	111	108	.97
23	Lenox,	562	568	1.01	63	Wellesley,	788	766	.97
24	Hanover,	333	336	1.01	64	Huntington,	299	290	.97
25	Wakefield,	1,937	1,953	1.01	65	Wellfleet,	123	119	.97
26	Groveland,	390	392	1.01	66	Chester,	241	233	.97
27	Rockland,	1,038	1,042	1.00	67	Brookfield,	420	406	.97
28	Hopedale,	310	311	1.00	68	Braintree,	1,190	1,149	.97
29	Bolton,	101	101	1.00	69	Stoneham,	1,061	1,024	.97
30	Hopkinton,	407	407	1.00	70	Gloucester,	4,597	4,428	.96
31	Mt. Washington,	18	18	1.00	71	Cohasset,	403	388	.96
32	Sandwich,	222	222	1.00	72	Townsend,	268	258	.96
33	Holbrook,	434	434	1.00	73	Middleborough,	1,180	1,133	.96
34	Natick,	1,625	1,623	1.00	74	Milton,	1,313	1,257	.96
35	Winchester,	1,539	1,537	1.00	75	Norfolk,	135	129	.96
36	Amherst,	769	768	1.00	76	Swampscott,	753	717	.95
37	Gt. Barrington,	933	930	1.00	77	Greenfield,	1,507	1,434	.95
38	Everett,	5,671	5,652	1.00	78	Foxborough,	516	491	.95
39	Barnstable,	629	626	1.00	79	Norwood,	1,370	1,300	.95
40	Nantucket,	412	409	.99	80	Hampden,	98	93	.95

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
81	Westborough,	666	631	.95	141	Essex,	357	316	.89
82	Medford,	3,737	3,537	.95	142	Revere,	2,759	2,439	.88
83	Bernardston,	127	120	.94	143	Boxborough,	51	45	.88
84	Leicester,	620	583	.94	144	Orange,	1,075	948	.88
85	Granby,	127	119	.94	145	Rutland,	237	209	.88
86	Groton,	345	323	.94	146	Enfield,	169	149	.88
87	Beverly,	2,651	2,482	.94	147	Savoy,	84	74	.88
88	N. Attleboro',	1,252	1,172	.94	148	Needham,	836	736	.88
89	Conway,	215	201	.93	149	Mansfield,	817	719	.88
90	Northbridge,	1,386	1,294	.93	150	Billerica,	508	447	.88
91	Wayland,	373	348	.93	151	Randolph,	662	582	.88
92	Maynard,	745	695	.93	152	Brockton,	8,072	7,088	.88
93	Cummington,	133	124	.93	153	Richmond,	89	78	.88
94	Topsfield,	116	108	.93	154	Weston,	275	241	.88
95	Littleton,	210	195	.93	155	New Ashford,	8	7	.88
96	Rockport,	834	774	.93	156	Andover,	1,211	1,057	.87
97	Easthampton,	1,128	1,046	.93	157	Pembroke,	179	156	.87
98	Lexington,	836	775	.93	158	Millis,	241	210	.87
99	Harvard,	137	127	.93	159	Ashburnham,	363	316	.87
100	Ashby,	123	114	.93	160	Hubbardston,	207	180	.87
101	Scituate,	431	398	.92	161	Winthrop,	1,293	1,122	.87
102	Phillipston,	64	59	.92	162	Athol,	1,195	1,037	.87
103	Granville,	150	138	.92	163	Southwick,	187	162	.87
104	Tisbury,	187	172	.92	164	Provincetown,	888	757	.86
105	W. Newbury,	223	205	.92	165	Charlemont,	162	140	.86
106	Oxford,	531	488	.92	166	W. Bridgewater,	328	283	.86
107	Southborough,	318	292	.92	167	Wrentham,	204	176	.86
108	Upton,	337	309	.92	168	Uxbridge,	741	639	.86
109	N. Andover,	834	764	.92	169	Leyden,	72	62	.86
110	Westminster,	238	218	.92	170	Northborough,	368	318	.86
111	Stow,	175	160	.91	171	Medfield,	244	209	.86
112	Winchendon,	1,098	1,002	.91	172	Hadley,	282	241	.85
113	W. Springfield,	1,573	1,435	.91	173	Cambridge,	15,858	13,550	.85
114	Plymouth,	1,813	1,651	.91	174	Grafton,	898	767	.85
115	Hinsdale,	255	232	.91	175	Royalston,	136	116	.85
116	Sturbridge,	332	302	.91	176	Springfield,	12,101	10,300	.85
117	Oakham,	87	79	.91	177	Chelmsford,	755	642	.85
118	Wilbraham,	250	227	.91	178	Palmer,	1,229	1,045	.85
119	Norton,	271	246	.91	179	Arlington,	1,810	1,536	.85
120	Duxbury,	235	213	.91	180	Newton,	6,273	5,320	.85
121	Belchertown,	424	384	.91	181	Ludlow,	620	525	.85
122	Nahant,	125	113	.90	182	Franklin,	980	828	.84
123	Acton,	329	297	.90	183	Westford,	420	354	.84
124	Newbury,	200	184	.90	184	Edgartown,	173	146	.84
125	Saugus,	1,301	1,173	.90	185	Hanson,	237	200	.84
126	Middlefield,	101	91	.90	186	Berkley,	150	126	.84
127	Sterling,	201	181	.90	187	Freetown,	259	217	.84
128	Falmouth,	526	473	.90	188	Leverett,	117	98	.84
129	N. Reading,	138	124	.90	189	E. Longm'dow,	311	260	.84
130	Wareham,	590	529	.90	190	Gosnold,	18	15	.83
131	Fairhaven,	773	693	.90	191	Eastham,	78	65	.83
132	Somerville,	11,969	10,722	.90	192	Mashpee,	54	45	.83
133	Walpole,	747	669	.90	193	Holland,	18	15	.83
134	Plainville,	191	171	.90	194	New Marlboro',	185	154	.83
135	Medway,	411	367	.89	195	Truro,	149	124	.83
136	Marshfield,	257	229	.89	196	Manchester,	462	383	.83
137	Hudson,	1,046	931	.89	197	Marion,	134	111	.83
138	Harwich,	396	352	.89	198	Blackstone,	1,152	954	.83
139	W. Boylston,	206	183	.89	199	Westfield,	2,285	1,891	.83
140	Norwell,	227	201	.89	200	Worcester,	21,610	17,857	.83

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
201	Attleborough, .	2,330	1,922	.82	261	Leominster, .	2,543	1,921	.76
202	Pittsfield, .	4,415	3,635	.82	262	Belmont, . .	809	611	.76
203	Somerset, .	458	377	.82	263	Lynnfield, .	118	89	.75
204	Florida, . .	79	65	.82	264	No. Brookfield,	541	408	.75
205	Williamstown,	822	675	.82	265	Middleton, .	157	118	.75
206	Lanesborough,	134	110	.82	266	Montgomery, .	48	36	.75
207	Gay Head, .	39	32	.82	267	Shutesbury, .	64	48	.75
208	Washington, .	72	59	.82	268	Dover, . .	126	95	.75
209	Shirley, . .	289	236	.82	269	Rochester, .	159	119	.75
210	Quincy, . .	6,286	5,132	.82	270	Lakeville, .	146	109	.75
211	Berlin, . .	173	141	.82	271	Rehoboth, .	334	249	.75
212	Dana, . .	133	108	.81	272	Templeton, .	679	506	.75
213	Hatfield, . .	265	215	.81	273	Barre, . .	423	314	.74
214	Boston, . .	101,865	82,561	.81	274	Douglas, . .	388	287	.74
215	Northampton, .	3,189	2,582	.81	275	Mattapoisett, .	215	159	.74
216	Sheffield, . .	241	195	.81	276	Salisbury, .	275	203	.74
217	Ipswich, . .	901	729	.81	277	Brimfield, .	145	107	.74
218	Stockbridge, .	384	310	.81	278	Waltham, .	3,876	2,860	.74
219	Northfield, .	253	204	.81	279	Lincoln, . .	133	98	.74
220	Georgetown, .	295	244	.80	280	Rowley, . .	242	178	.74
221	Chesterfield, .	86	69	.80	281	Westport, .	506	371	.73
222	Methuen, .	1,660	1,330	.80	282	Brewster, .	116	85	.73
223	Sherborn, .	220	176	.80	283	Lee, . . .	717	525	.73
224	Boylston, .	120	96	.80	284	Lancaster, .	423	309	.73
225	Shrewsbury, .	304	243	.80	285	Blandford, .	133	97	.73
226	Malden, . .	7,246	5,790	.80	286	Swansea, . .	303	220	.73
227	Goshen, . .	54	43	.80	287	Petersham, .	140	102	.73
228	Dighton, . .	345	274	.79	288	Milford, . .	1,915	1,395	.73
229	Sharon, . .	344	273	.79	289	Dracut, . .	626	456	.73
230	Taunton, . .	5,445	4,311	.79	290	Spencer, . .	1,345	979	.73
231	Colrain, . .	355	281	.79	291	Haverhill, .	6,636	4,818	.73
232	Buckland, .	274	216	.79	292	Marlborough, .	2,896	2,096	.72
233	Lunenburg, .	226	178	.79	293	Sandisfield, .	101	73	.72
234	Hamilton, .	286	225	.79	294	Millbury, .	935	673	.72
235	Clinton, . .	2,437	1,917	.79	295	Plainfield, .	82	59	.72
236	Holden, . .	508	399	.79	296	New Braintree,	89	64	.72
237	Tyngsborough,	135	106	.79	297	Warwick, .	124	89	.72
238	Chelsea, . .	7,232	5,678	.79	298	Sutton, . .	635	454	.71
239	Wenham, .	164	128	.78	299	Halifax, . .	77	55	.71
240	Westwood, .	208	162	.78	300	Burlington, .	63	45	.71
241	Watertown, .	1,772	1,379	.78	301	Westhampton,	105	75	.71
242	Plympton, .	63	49	.78	302	Wales, . .	122	87	.71
243	Seekonk, . .	255	198	.78	303	Carver, . .	209	149	.71
244	Egremont, .	98	76	.78	304	Peabody, . .	2,423	1,720	.71
245	Windsor, . .	93	72	.77	305	Wendell, . .	93	66	.71
246	Woburn, . .	3,388	2,622	.77	306	Boxford, . .	103	73	.71
247	Southampton, .	167	129	.77	307	Raynham, .	257	182	.71
248	Agawam, .	482	372	.77	308	Warren, . .	801	566	.71
249	Newburyport, .	2,421	1,866	.77	309	Sunderland, .	150	106	.71
250	Dartmouth, .	689	530	.77	310	Tewksbury, .	572	402	.70
251	Montague, .	1,387	1,060	.76	311	Gardner, . .	2,118	1,485	.70
252	Acushnet, .	232	177	.76	312	Deerfield, .	346	242	.70
253	Hull, . .	222	169	.76	313	Bedford, . .	193	135	.70
254	Charlton, . .	375	285	.76	314	Pelham, . .	93	65	.70
255	Otis, . .	79	60	.76	315	Cheshire, . .	226	157	.69
256	Cottage City, .	244	185	.76	316	Carlisle, . .	98	68	.69
257	Lynn, . .	11,836	8,969	.76	317	Hancock, .	75	52	.69
258	Stoughton, .	985	746	.76	318	Rowe, . .	99	68	.69
259	Bellingham, .	309	234	.76	319	Whately, . .	105	72	.69
260	Princeton, .	176	133	.76	320	Paxton, . .	94	64	.68

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
321	W. Stockbridge,	182	123	.68	338	Dunstable,	90	56	.62
322	Hyde Park,	2,697	1,822	.68	339	Hardwick,	580	359	.62
323	Greenwich,	91	61	.67	340	Auburn,	398	245	.62
324	Becket,	159	106	.67	341	Fall River,	20,493	12,485	.61
325	Gill,	167	111	.66	342	Longmeadow,	203	123	.61
326	Peru,	68	45	.66	343	Monterey,	90	53	.59
327	North Adams,	4,366	2,882	.66	344	Chicopee,	3,644	2,135	.59
328	Lowell,	14,658	9,644	.66	345	Alford,	49	28	.57
329	Amesbury,	1,540	1,001	.65	346	Lawrence,	12,546	7,136	.57
330	Clarksburg,	265	172	.65	347	Fitchburg,	6,539	3,709	.57
331	Ware,	1,548	1,002	.65	348	Holyoke,	10,385	5,419	.52
332	Adams,	2,460	1,580	.64	349	Chilmark,	39	20	.51
333	Canton,	815	523	.64	350	Tyringham,	41	20	.49
334	Hawley,	83	53	.64	351	Tolland,	46	20	.43
335	New Bedford,	12,887	8,216	.64	352	Southbridge,	2,113	904	.43
336	Salem,	6,832	4,292	.63	353	Dudley,	792	334	.42
337	Russell,	178	111	.62	354	Webster,	2,033	590	.29

Graduated Attendance Table.

Table in which all the counties are numerically arranged according to the ratio of the AVERAGE ATTENDANCE *of children upon the public schools to the whole number of children in towns between 5 and 15 years of age, for the year 1905–1906.*

For 1905-1906.	COUNTIES.	Ratio of attendance.	For 1905-1906.	COUNTIES.	Ratio of attendance.
1	Nantucket,	.99	9	Suffolk,	.81
2	Barnstable,	.94	10	Berkshire,	.76
3	Plymouth,	.92	11	Worcester,	.75
4	Norfolk,	.88	12	Essex,	.75
5	Middlesex,	.85	13	Hampden,	.73
6	Hampshire,	.85	14	Bristol,	.69
7	Franklin,	.85			
8	Dukes,	.83		State,	.80

GENERAL INDEX

TO THE

REPORTS OF THE STATE BOARD OF EDUCATION OF MASSACHUSETTS.

(Volumes 1 to 70)

From 1838 to 1907,

PREPARED BY

Agnes Caroline Blake and Esther E. Elwell.

GENERAL INDEX.

[Vols. 1–70.]

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